

# Michael Bowman

- Cloud-Native (Architect/Engineer)
- Full-Stack Solution (Architect/Engineer)
- Scrum Master
- DevOps Engineer
- Servant/Leader

# Whiskey Row Software



LONG RESUME

Cell: 971-203-4437

[www.whiskeyrowsoftware.com](http://www.whiskeyrowsoftware.com)

100% AMERICAN BASED REMOTE ENGINEERING

*You'll love what I do*

## SUMMARY: *I generate top quality deliverables faster than 95% of the engineering pack!*

- 20+ years of Pro-Experience
- Highly Disciplined
- Highly Creative
- Cross Functional Team Expert
- Design Patterns
- Best Practices
- Extreme Servant-Leader
- Strong Mentor & Communicator

A cloud-native, full-stack solution architect, engineer, and scrum master that keeps velocity, quality, throughput, and team spirit at an all-time high while driving down cost, time to deliver & thrash levels. Develops superior custom & extensible cloud-native architectures, as well as Angular SPAs/PWAs. An expert with Agile Scrum methods, tools, & ceremonies. Adds tremendous value to organizations and keeps engineering on the preferred glide path to victory. Fosters happy & healthy team cultures for repeated consistency (project success)! As one CTO recently stated, "Michael leaves his fingerprints on everything in the organization. He helps everyone with everything, and everything he does is through best-practices, and design patterns for efficiency & velocity!" *Tech Focus: Angular, Cloud Native(serverless), Graph DBs, Flutter/Dart, DevOps*

**Specialist in:** Angular (Federated Modules, Standalone Components), NodeJS, Docker/Compose, AWS, Azure/Azure DevOps, CI/CD Pipelines, Git Hub, Git Lab, Bit Bucket, Microservices (serverless or container based with choreography or orchestration), Typescript, JavaScript, REST APIs, SPAs/PWAs, and everything distributed for the cloud including analysis, architecture, design, coding, anything related to DBs, including rdbms, graph, document, key-value & no-sql stores. He is also ramping up quickly on Flutter/Dart for one codebase deployments (iOS, Android, Web)

| Skills   | Technologies Used   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>• Abstract Modeling</li> <li>• Agile / Scrum Methods</li> <li>• Analysis</li> <li>• Architecture</li> <li>• Coding</li> <li>• Config Management</li> <li>• Data Modeling</li> <li>• Design / Patterns</li> <li>• Dev Ops (CI/CD)</li> <li>• HA / DR</li> <li>• Environment Tuning</li> <li>• Mentoring</li> <li>• Networking</li> <li>• Object Oriented Analysis</li> <li>• Object Oriented Design</li> <li>• Object Oriented Programming</li> <li>• Project Management</li> <li>• Remote Engineering</li> <li>• Scrum Master</li> <li>• Test Driven Development</li> </ul> | <ul style="list-style-type: none"> <li>• Angular 1.x – latest (Standalone Components / Federated Modules with WebPack5, Signals)</li> <li>• AG-Grid, Google Maps, etc.</li> <li>• Angular IDE, Angular-CLI</li> <li>• Angular-Compiler, AoT / Federated Modules / Standalone</li> <li>• Atlassian Tools (Jira, Confluence, etc.)</li> <li>• AWS (S3 / Lambda / Cloud formation, Queues, etc.)</li> <li>• Azure (functions, service bus, queues, etc.)</li> <li>• Azure Storage Explorer &amp; Azure Fabric</li> <li>• Azure Bicep / Azure ARM</li> <li>• Babble / Webpack</li> <li>• Bootstrap / Foundation / Material Design</li> <li>• CSS / LESS / SASS</li> <li>• <i>Databases (* see note below)</i></li> <li>• Flutter / Dart</li> <li>• GIT / TFS / Subversion / Mercurial</li> <li>• GitHub, GitLab, Bit Bucket, GH Desktop, GH Actions</li> <li>• Go &amp; Python</li> <li>• Google Apps</li> <li>• jQuery/AJAX</li> <li>• JavaScript (ES5/ES6/ES7/ES8/ES9)</li> <li>• JSON, JWT, AUTH0</li> </ul> | <ul style="list-style-type: none"> <li>• LINQ / LAMBDA</li> <li>• Linters (JSLint, ESLint, TSLint)</li> <li>• MVC / MVVM/ MVP patterns</li> <li>• .NET (C#, MVC, WEBAPI2, Unity)</li> <li>• NODE JS (EXPRESS), Npm, Yarn</li> <li>• RxJs, NGXS, NGRX</li> <li>• OData, Entities- 365</li> <li>• Postman / Figma for UI</li> <li>• Rabbit MQ</li> <li>• REST (APIs)</li> <li>• SaaS / IaaS / PaaS</li> <li>• Signal R / Socket IO</li> <li>• SOAP/WSDL</li> <li>• SPAs / PWAs</li> <li>• Swagger</li> <li>• TypeORM – most other ORMs also</li> <li>• TypeScript</li> <li>• VS.NET / VSCODE</li> <li>• Vid Conf (WebEx, Goto Meeting, etc.)</li> <li>• VSTS &amp; VSO</li> <li>• Azure DevOps / Pipelines</li> <li>• Docker / Compose</li> </ul> |

*\* Database Note: Michael has decades of experience with most every version of Oracle, MS SQL Server, My SQL, Teradata, Mongo DB, Dynamo DB, Cosmos DB, Graph DBs (DGraph, Neo4j, GraphQL & Cypher), Couch DB, Mariah DB, and PostgreSQL. Michael holds 6 Neo4J certifications.*

## TYPICAL WORK DATA FOR MICHAEL BOWMAN:

*Up early. At work by 7:00AM MST to work independently, or, with remote teams on a national or global basis. Develops with local tools and cloud native tools. Uses various online-playgrounds (Stack-Blitz, PLNKR, TypeScript). Also uses Mongo DB, VSCODE, NODE JS, Azure, AWS, GitHub, GitLab, Docker, and Docker Compose for Angular SPAs/PWAs, Angular components and APIs (MEAN Stack). Also creates pure serverless APIs (microservices) with Lambdas/Azure-Functions (CRUD or CQRS) backed by Bulkheads in a tri-lateral configuration. Helps other team members with technical issues (providing oversight via WebEx, Google Hangouts, SLACK, MS-Teams and Zoom). Manages the Sprint (full ceremonies) with a variety of tools (client dependent); Atlassian Tools, Azure DevOps, Smartsheet, Trello, etc. Performs DevOps tasks (building, tuning, and running pipelines) as well as helping to buildout and groom requirements in the sprint backlog for engineering consumption (Intake -> Deployment).*

## WORK HISTORY (expanded version)

| RCG / KOCH Mining   | 10/2/2023 – 3/1/2024  |
|---|-----------------------|
| <p>Initially, signed a 3 month contract (providing for extensions). The actual engagement was 5 months because of a verbal extension with RCG. Hired as an Angular Expert, but duties soon ballooned to also include the following.</p> <ul style="list-style-type: none"><li>• Overhaul of MS ADO Project Board. This included a deep overhaul &amp; conditioning of process &amp; ADO configurations, adding swim lanes, template changes, added areas &amp; iterations.</li><li>• Wired up MS Teams with ADO using Webhooks (flowing data from ADO to MS Teams). Also created over 10 MS Teams channels to allow individuals to track, collaborate &amp; consume tailored information by channel category.</li><li>• Created the ADO Wiki for T360. Also created Wikis for other KOCH projects in ADO.</li><li>• Primed the T-360 Wiki with information for 2023/2024 Roadmaps, Releases, Sprints, Advanced Engineer Tooling (for development), GitHub related (branching strategy and CICD), Angular Architecture (PWAs, Federated Modules), API related docs including custom Postman collections for the various API domains, Guidance, Process and Execution related models and buckets to improve velocity &amp; quality, and lower thrash. Also made and posted videos to the Wiki for educational purposes.</li><li>• Created an advanced, well-crafted Github Actions CI/CD REPO that enforced GH Rules on the REPO, the PRs &amp; the Branches and would selectively build projects that contained deltas (only building what had changed to save \$). All DEV and PROD builds were logged, stamped, and saved to S3 using a vector date for easy usage. Created custom YAML files (Github custom workflows) as well as dashboards for Managers to see roll up pass/fail info on builds.</li><li>• Created a complete CI/CD overhaul using Blue/Green deployments with requisite AWS resources (CloudFront, Route53, S3, Cognito, Edge Lambda's) using Angular 17 project (1 host, 4 remotes) as the sample. Built &amp; deployed the Angular 17 Federated Modules Demo to demonstrate advanced architecture to achieve maximum NG benefits.</li><li>• Met with the IT Director nearly every week to ramp him up on current architectural patterns, designs, best practices, and to discuss the concerns of the technical debt in the apps.</li><li>• Performed triage on a critically brittle Angular app to revive it; code analysis, code repair, shoring up, updating dependencies, and removing deprecated statements from code, and refactoring. Also re-enabled all the standard Typescript safety's that had been disabled in order to make the app compile with full safeties. This triage was to bring the app into a modern state, using complete guardrails (ES-Linting, Static Compile Time Checking, Type Safety).</li><li>• Met with other teams (Architects/Engineers) to assess their architectural needs and to provide solutions.</li><li>• Worked daily with backend engineers in India (11 hour difference) and some in Europe (10 hour difference).</li></ul> |                       |
| FedEx- Angular & CI/CD with GHA   | 5/10/2023 – 7/14/2023 |
| <p>I signed on for a 3-year contract with 6 month contract renewals. On day one, the project I was slated for was sent to Amsterdam for maintenance. I was then placed into a new CI/CD team to head up CI/CD overhauls from Jenkins to GHA. Unfortunately, the team manager could not secure funding, consequently, the contractors were let go.</p> <p>FedEx liked me so much, they tried to bring me back for a one-year contract (a new contract), but again, funding was rejected due to budget constraints. I was informed of the budget rejection on August 1<sup>st</sup>, 2023.</p> <p>I do have excellent references from FedEx, and they have stated they would like to bring me back once funding can be secured, probably sometime in 2024.</p> <p>In the short time I was at FedEx, I built an Angular 16 HOST / REMOTE solution that incorporated Angular Signals, dynamic and programmatic loading of standalone components. Also built a template REPO that could be used for advanced GHA CI/CD efforts.</p>  |                       |

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| <b>RSI / Terminus</b>   | <b>4/11/2022 – 1/12/2023</b> |
| As the Principal Frontend Architect/Engineer for RSI, I was placed at Terminus (with 10 other FE engineers), to help Terminus with a variety of mission critical efforts (brownfield to greenfield migrations). My contributions included establishing Federated Modules and Standalone Components (NG 14 with WebPack5), as well as helping with migrations from NG 1.x (Legacy) to NG 14. Also pushed for the migration from convox and docker to S3 with CloudFront for NG deployments. Helped improve CI/CD with GitHub Actions, also mentored anyone that needed help. Established Postman Collections and worked with Terminus management and RSI management to help identify and fill gaps in process, execution, and method. Produced numerous videos to demo work-product. Daily tooling & coding included Typescript, NG, VSCODE, GitHub, Jira, AWS, Postman, Figma, and a variety of other custom components, including APIs. Participated in all Sprint ceremonies.   |                              |
| <b>Smart Warehousing – Chief API Architect</b>  | <b>8/8/2021 – 1/14/2022</b>  |
| Hired as the Chief API Architect to develop and provide expert level guidance, patterns, and frameworks which yield cookie-cutter APIs that support CQRS, ETAGS, CACHING, Throttling Behaviors (Queues FIFOs), Web-Sockets, Routing, Headers, Authentication/Authorization (AUTH0, AWS Cognito), Circuit-Breakers (retries and DLQs), Event-Bridge, Event-Sourcing (REPLAYS), and Kinesis for fast pushes to Data Lake (Analytics). Also helped with dev-ops and Scrum method/process improvements. Reported directly to the CTO. Worked with everyone including engineering, the product side of the business and data engineers. I also helped ETL from the legacy system (900+ Postgres DBs) with custom scripts that performed cross-db-queries to extract data from 900+ DBs for injection into Dynamo-DB. Provided guidance and custom workflows to Jira Scrum Masters in order to help standup SCRUM ceremonies correctly. AWS and Azure were used. Created how-to-videos for junior developers. Evaluated technologies and drove solutions. |                              |
| <b>Covid Projects</b>   | <b>4/22/2020 – 8/8/2021</b>  |
| As a consultant, working short projects for clients like Harmon/Vita, Aim Consulting, Genex Services, and others as an Architect, Lead Engineer, and Technical Scrum Master. Technologies include DGraph, Neo4J, Angular, NodeJS, Docker, Docker Compose and Kubernetes for Distributed Cloud Solutions on Azure, and AWS. Teaching and applying basic and advanced Scrum Techniques using Azure DevOps, and AWS: <i>ask for a demo!</i>  |                              |
| <b>AUTODEV – (CA) - Full Stack Architect / Engineer</b>   | <b>8/15/2019 – 4/21/2020</b> |
| Greenfield #1: With minimal supervision, worked with users to design, build and deliver an Angular 9 (Typescript) high-frequency-data-update-and-display app for the Galves Analysis Team so they could maintain and modify numerous data points for every car in the Galves system in real-time, with full audit capability. This app used Angular, Python, Django and SQL Server with Material Design, and AG-GRID on the front end. Was also responsible for all ETL data operations to scrub and load the data (migrations). Greenfield #2: I designed and built a responsive Google Maps Auto Transport Tracking widget that is soon to be used (embedded in websites) by dealerships nationwide (starting on the East Coast). The fully responsive widget tracks “transport trucks & drivers” in real-time across America and plots the data on “Angular Google Maps”. Used Material Design, SASS, RxJs. This was a high visibility app.  |                              |
| Brownfield: I made numerous code contributions (bug fixes, new components, and new features) to many legacy apps, including Regulus (an Angular JS 1.5 legacy app).   |                              |
| <b>RV-NOW – (Bend Oregon) Full Stack Architect / Engineer</b>   | <b>2/18/2019 – 6/29/2019</b> |
| Bootstrapped the startup. As a key member of the startup, I was responsible for establishing/standardizing tooling, and for spinning up the platform (Azure DevOps). I configured and ran the daily scrum meetings using Azure/DevOps, and the build pipelines for deployments. I performed all duties as data-scientist for ETL purposes, data take on and validation purposes. I also designed and built an Angular front-end app for users to manage the data, also built NodeJS apps to perform ETL on the back (Azure cloud). Handled all Azure setup, tooling, and configuration, including branch strategies and gated check-ins. Also worked closely with the Mobile Team to deliver REST APIs they consumed. Performed all Scrum Master duties.  |                              |
| <b>GoDo LLC (New Orleans LA) Lead Engineer / Scrum Master / DevOps</b>  | <b>8/1/2018 -- 1-14-2019</b> |
| I ran the engineering team which consists of employees and contractors. I reported directly to the CEO.<br>Duties - Lead Engineer: Design and manage all aspects of Azure DevOps for Docker, NG and MVC/ASP.NET applications. Designed, built and managed 20+ advanced CI/CD pipelines for one click builds and deploy scenarios (as well as auto triggered builds/deployments). Contribute designs and code solutions for legacy and greenfield apps ranging from ASP.NET to NG7. Mentored other engineers. Managed all environments (sandboxes; Dev, Integration, Pre-prod and Prod) including SQL Server DBs, Web Apps, APIs(public and private), etc. Help other engineers improve efficiency and use GIT correctly.  |                              |
| Duties - Scrum Master: setting up and configuring the dashboards for full metric tracking of commits, builds, deploys, burndown and burnup charts. Configured sprints, releases, and areas. Also, customized VSTS for efficient SCRUM discipline including optimized boards, workflows, and custom templates. Managed sprint planning (estimates and task breakdowns) and retrospectives.   |                              |
| <b>Columbia Sportswear (Portland OR) Lead Engineer / Scrum Master</b>   | <b>4/23/2018 – 6/18/2018</b> |
| As a senior engineer, team manager/lead and scrum master, I hired engineers, built a global team, and delivered “cookie-cutter” high performance, resilient microservices to CSC in record time to complete the Build 1 effort; 11 weeks. I crafted Interface   |                              |

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| Design Docs, collaborated with DevOps and other teams, established best practices (team patterns) and designed and delivered (with my team) microservices that had full telemetry, log analytics, exception handling, data retention, circuit-breaker, and retry patterns. The micro-services wrapped all calls into and out of Microsoft Dynamics 365 (F&O) and provided transformations to and from CSC canonical JSON and OData Entities (365). I established Azure DevOps dashboards to track full team metrics, and CI/CD build stats in real time, as well as Burnup, Burndown, and Velocity. I tracked all aspects of the 11-week project using VSTS Wiki pages with links to SharePoint artifacts, again, with full metrics. Technologies: Microsoft Azure (Service Bus, Event Grid, Queues, Azure Functions, Data Lake, Azure CLI, Graph API, Cosmos DB, Micro-Services, Telemetry, Log Analytics, Virtual Machines), C#, .NET, .NET Core, VSCODE, VS.NET, VSTS, Share Point, JSON, Slack, WebEx, OData, and Windows 10, GIT, GitHub Desktop. Ask me why I did not stick around for phase 2 |                          |
| <b>Veracity (Lehi UT) Enterprise Architecture Group – Young Living</b>   | <b>02/2018 – 03/2018</b> |
| As part of an EA team, I went onsite and participated in and documented the Large, Medium and Small (low-level) details of the Young Living Corporation from top to bottom in terms of people, roles, process, pain points, goals, and solution architecture. Following the one-week intense onsite discovery, I then spent two weeks crafting summary and detailed reports which outlined the observations with full traceability back to business & quality goals. The on-site interviews included the board of directors, department managers, project managers, dev-ops teams, ops teams, engineering teams, and contractors, as well as physical systems architecture, code break downs, work-flows, and, global concerns   |                          |
| <b>Veracity (Portland OR) Architecture/Development – View Point</b>  | <b>11/2017 – 01/2018</b> |
| Developed architectural proposals for a multi-queue Azure based solution on a very compressed schedule. I then implemented the solution using Azure storage queues, Azure blobs, and Azure functions in C#, with JSON and custom APIs. This green field feature allows users (on-demand) to submit criteria for downloading huge projects (SQL BLOBS and related SQL data) into Zip files which are stored on Azure Blobs. I also helped other engineers in establishing the Full Stack on their development boxes. Technology used, .NET4.6.1, Azure CLI, Azure Storage, NODE, NPM, GULP, Angular, MVC, REST, SOAP, SQL Server, GIT, VSTS, VSCODE, VS.NET and various 3rd party tools.  |                          |
| <b>INMAR Corp (Winston-Salem NC) – Senior Software Engineer</b>  | <b>4/2017 – 10/2017</b>  |
| Full stack front end engineering on multiple apps Legacy and Greenfield with JavaScript(ES5, ES6), Angular, Node, Riot.js, Jenkins, NPM, webpack, gulp, babble, .NET, SQL Server and many other 3 <sup>rd</sup> party libraries (including bootstrap and custom CSS styles), CouchDB, REST APIs, Postman, Kibana, Swagger UI, auth0, JWT, VSO, GitHub, The Atlassian tools, VSO and Nexus. Contributed to legacy and greenfield projects on cross functional teams in an often chaotic environment on a remote basis. The client is on the East Coast; I was on the West Coast. As a senior engineer, I was responsible for working with vague requirements, and turning them into quality product; this includes technical analysis, design, coding, testing, building, and deploying to the cloud.   |                          |
| <b>Armstrong International (Detroit MI)– Full Stack Consultant</b>   | <b>10/2016 – 12/2016</b> |
| Designed & coded a NodeJS / Angular (SPA) web site (mean stack). Node was used to serve up an Angular SPA, and to proxy REST calls from Angular, to Node, to a legacy Oracle/Maven/Spring system, and back to Angular. I configured Node to provide caching functions to lower bandwidth to the Legacy system. The Angular SPA I created performed isothermal and adiabatic type load calculations for three types of environments (economy, fixed and area); each with unique inputs. The Angular app also included toast messaging services. The Node portion used NPM, and GRUNT, with tasks for building less/sass, testing, and running the app from the command line (via NPM or GRUNT). Used Mocha / Chai for testing. Authored using Windows 10, VSCODE, Angular 1.5.9   |                          |
| <b>Zorts Sports (Portland OR) – Full Stack Consultant</b>  | <b>05/2016 – 09/2016</b> |
| Designed & coded a NodeJS web site (mean stack) that served up a custom Angular app which rendered binary tree data in “bow tie brackets” format for sports applications. The NodeJS backend used Express and Socket IO for high speed updates to the clients. This site used JSPLUMB to connect the binary tree nodes (angular directives) in a bow tie fashion. Each node (directive) had specialized behavior (popups, and CSS behavior). Authored using Ubuntu 14.x, VSCODE, Angular 1.5.8   |                          |
| <b>Oportun (Progress Financial) (S.F. CA) – Consultant</b>   | <b>12/2015 – 05/2016</b> |
| Worked on a financial app called ngZeus (front end). Duties included writing AngularJS code in the context of resolving Jira tickets based on 2 week sprint cycles. Debugged other people’s code and provided feedback to mgmt. for methodology, discipline, process and tool improvements. Also helped migrate code from an older backbone app into AngularJS 1.5.x. The workstations were MACs running El Captain with WebStorm, VSCode, Grunt, SASS, NPM, Bower, NGINX, MySQL, MongoDB, and several standard open source tools and libs. This was an open source project. The teams are mostly virtual; working remotely. This was an ES5 project with new development to be in ES6. Used Atlassian tools; Confluence, Jira, Bit Bucket, & Source Tree with AWS for cloud services.   |                          |
| <b>Hoffman Academy (Portland OR) – Consultant</b>  | <b>8/2015 – 10/2015</b>  |
| Using Web Storm, I created a MEAN stack Angular JS app with Sockets.IO, Routes, and REST APIs. I built VMWare images that run Ubuntu, the MEAN Stack, PHP, Web Storm, MySQL, GIT, MongoDB, Robo Mongo, Bower, Grunt, NPM & WordPress for easy development and onboarding of new developers. Within two weeks I put the company on the Atlassian tool set, taught Agile/SCRUM principles, mentored the team, created work flows, policies, architectures & designs for brownfield and greenfield  |                          |

efforts. I also created new keys and namespaces for all AWS environments. I also created customer service portals (for customer service employees) to manage issues. I overhauled the existing AWS platform bringing the client into a sandboxed, DEV, TEST and PROD deployment practice using Bamboo and Bit Bucket, because, the prior configuration was not using Bit Bucket pushes on a regular basis, and the live server and Bit Bucket were not in sync. I also administered the Atlassian tools and created four new Bit Bucket REPOS for brownfield and greenfield efforts to support continuous integration and automated builds.

**IMAN Studios (Los Angeles CA) -- Software engineer server migration** **5/2014 – 7/2014**

Identified weakness and developed recommendations for an existing social web app. Helped client to acquire BizSpark services, and plan to upgrade current development services from an adhoc open source environment to TFS with full SDLC using AGIL practices. Reviewed server logs and helped repair holes in the system. Improved the existing code base and SCC by making changes to the branches to reduce merger madness. Used Vs.2013, ASP.NET and SQL Server to unravel an undocumented website that had reached entropy. Produced documentation and plans to move forward on the AZURE platform. Helped other developers to hit their goals.

**DW Associates LLC (Austin TX) – Technology director / lead software engineer** **11/2011 – 04/2014**

Besides scrum-based software development with .NET technologies, my responsibilities & duties included the establishment of best practices, crafting architecture & design for cloud & on-prem based solutions, server maintenance, server configuration, build engineering, SharePoint configuration, network security and mentoring the development team. I was also responsible for creating and managing Team Foundation Server (with 12 build agents) and for deploying builds to DEV and PROD environments in Azure and Rackspace. I used .NET 4.x to build MVC3, MVC4 and WCF based apps that were scalable and robust. As SCRUM Master I managed projects and sprints (again TFS), and trained others on the team. I created learning videos (on YouTube) for team members to learn TFS, SharePoint and VPN access. As an analyst, I collaborated with many people (usually virtually with GoToMeeting and Skype) in order to document complex problems and craft best practice solutions in simple graphical form. I designed and built complex apps using TDD with .NET 4.x, MVC3 & MVC4 (Razor), Enterprise Services with COM+, SQL Server 2008 R2, Visual Studio 2010 and 2012, TFS 2010, and Merchant Services. I mentored other engineers with tools and technology and helped upper management with strategic tasks related to the product. This is a virtual team that used Goto Meeting extensively for collaboration. All work was done from my home-based lab in Portland Oregon.

**Sigma Digital Imaging (Chicago IL) - Consultant** **12/2010 – 9/30/2011**

Architecture, design, development and build engineering. Designed and engineered an “x-ray” acquisition & imaging system using WPF with .Net 3.5 & 4.0, LEAD Tools and various 3<sup>rd</sup> party x-ray sensor & scanning devices from Toshiba, Alara and others. Was responsible for full SDLC duties including analysis, design & build engineering. Used Cruise Control, SVN & MSBuild to establish automatic builds. Designed a fully normalized SQL SERVER DB with a related Entity Framework model to provide data access to the app. Used design patterns throughout the app. Used advanced WPF features to accommodate the graphics needs of the app; drag and drop, scaling, binding, resources. The app has intensive algorithms for image manipulation (post processing). Also created an FDA submission document. Also created Test Driven Development tests and used LINQ throughout the application layers. Was also responsible for analysis, documentation & project management tracking using Axosoft On-Time. Worked with vendors to resolve COM to .NET issues. Used PINVOKE and other advanced .NET features.

**Learning.com (Portland OR) - Consultant** **9/2010 (30day contract)**

In less than 30 days I exceeded my contract deliverables & client expectations. I setup and configured multiple nested SharePoint sites to track project artifacts, personnel, status reports, discussions (wikis), risks and resources. I setup and configured a Jira / Green hopper (AGILE/SCRUM) project with full metric tracking of burn down and velocity. I built and delivered a very detailed “multi release, multi sprint” MS Project plan which described the SDLC in very fine detail. I then “charged” (loaded) the Jira project with one release having four sprints and filled up the task board using requirements as a source. I coordinated with other departments, developers and upper management in organizing development/test efforts, acquiring hardware for integration build and test, and I set tasks for developers. Ahead of schedule I built & delivered a comprehensive technical architecture document which set forth the technologies and overall architecture, direction and scope for the SOA system and its constituent parts (from vision to physical system). I also helped other developers with Database normalization tasks and helped them grasp the big picture on SOA and MSMQ in the architecture. This was a very tight budget project. I was tapped to kick start this stalled & stale project and get it up and running as soon as possible.

**CCLI (Portland OR) - Consultant** **6/2010 - 8/2010**

This was a quick project to support a Microsoft CRM project that needed a backfill developer towards the end of the project. As .NET Team Lead for the CRM side, duties included general problem solving, design, building and testing of Microsoft CRM customizations, plugins/workflows, system-to-system integration points and web services. Used VS 2010 with SQL 2008R2, Microsoft CRM 4.0, VMWARE, and TFS. Duties also included analysis, design, coding and testing (TDD) to support the client’s needs. The project was managed with JIRA (AGILE) and daily SCRUM meetings. This was a very compressed project. Created a bridge DLL to facilitate moving data between the Order Entry system and CRM using VS2010, Dynamic Entities, LINQ for CRM(XRM), CRM Native Query Language, CRM.SDK and proxy objects for CRM service and metadata access.

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| <b>Intel (Portland OR) .NET Engineer/Consultant</b>   | <b>11/2009 - 5/2010</b>  |
| Contributed architectural, design and coding bits for a large complex winform application. Used 3rd party charts and controls (Ultra Grid) as well as SQL Server for the backend. (2nd proj) Fabricated detailed UML requirements via reverse process engineering. Constructed a core framework with Data Access and Business Object layers using ADO Entity Framework in an HTTP Context. Also modeled and created the 24-table database using 3NF standards with full engine side enabled RI and declarative constraints. Also created Test Cases (TDD) to cover testing of Business Objects and DAL. Reported status on a regular basis and helped other team members with other projects and technology issues as they arose. Used Team Foundation Server as the source code repository.  |                          |
| <b>Boeing (Seattle WA) Lead Developer/Architect/Consultant</b>  | <b>05/2007 – 08/2009</b> |
| Full SDLC duties which included analysis, architecture, design, construction (coding), server configuration, migrations, build engineering and customer support for a worldwide N-Tier .NET web-based application and SQL database that provided worldwide airlines and their pilots with electronic documents on the flight deck for normal and emergency flight situations. (FAA approved project). Responsible for the installation of Team Foundation Server & VSS. Worked on two other projects: ePlane and LogBook. EDB was a WinForm app running in the cockpit. Technologies Used: VSS, VSTS, SQL Server 2000 & 2005, .NET 1.1, .NET 2.0, .NET 3.5, VS.NET 2003, VS.NET 2005, VS.NET 2008, ADO.NET, ASP.NET, C#, XML, XSLT, DOM, XPATH, VBScript, JavaScript, Windows 2003 Server, HTML, Visio UML, NUnit, Web Services, Stored Procs, Generics, SharePoint, MS Build, Nant, SQL DTS, Master Pages, Controls, JQuery, Subversion, Tortoise, Putty Visual SVN, Net Beans, Java, Tall Components, dtSearch, IIS5 and 6. |                          |
| <b>Random Lengths (Eugene OR) Lead Developer/ Architect/Consultant</b>  | <b>12/2005 – 03/2007</b> |
| Responsibilities included architecture, design and construction of a large “n-tier” framework and solution which yielded a subscription-based web site that delivered custom “visually graphed” reports from real time data that constantly changed. Responsible for the design of three SQL Server 2005 Databases as well all layers of .NET application tiers (DAL, BOs, GUI (web app), Interfaces) as well as web services and NUnit test projects. The VS Solution contained 6 projects and the SQL Server Solution contained 3 projects: for a total of 9 projects with over 650 objects. Responsible for VSS DB setup, maintenance, and trained developers in C# coding and proper VSS techniques. Technologies Used: VSS & SOS, SQL Server 2005, SQL, .NET 2.0, VS.NET 2005, ADO.NET, ASP.NET, C#, XML, XSLT, DOM, XPATH, VBScript, JavaScript, Windows 2003 Server, HTML, Visio UML, NUnit, Web Services, Stored Procs.   |                          |
| <b>Intel Corp (Portland OR) Senior Software Developer/Consultant</b>  | <b>08/2005 – 12/2005</b> |
| Responsible for all aspects of web development which included client-side page fabrication (GUI), client side scripting (JavaScript/DOM), web services, XML manipulation, and, validation. Contributed to bug fixing for a SOA system that used extensive web services. Used C# to craft web services for system to system data migrations. Technologies Used: VSS, SQL Server 2000, SQL, .NET, VS.NET, ADO.NET, ASP.NET, C#, XML, XSLT, DOM, XPATH, VBScript, JavaScript, Windows 2003 Server, HTML, Visio UML, NUnit.   |                          |
| <b>Server Logic (Portland OR) Senior Software Developer/Consultant</b>  | <b>04/2005 – 07/2005</b> |
| Performed bug fixing, new development and architectural changes for 10+ production web sites and backend databases for large clientele. Performed VSS DB clean up and restructuring for better build engineering. Sites ranged from ASP.NET to old style ASP. Technologies Used: VSS, SQL Server 2000, .NET, VS.NET, ADO.NET, ASP.NET, ASP, C#, XML COM, DCOM, ADO, VBScript, JavaScript, ODBC, OLEDB, Windows 2000 Server, Windows 2003 Server, Terminal Services, HTML, Visio UML, COM+, ERWin, ADOBE.  |                          |
| <b>Intel Corp (Portland OR) Senior Software Developer/Consultant</b>  | <b>08/2004 – 04/2005</b> |
| Responsible for the design and deployment of a new architecture (including SQL Server DB and downstream clients) that yielded a 60X performance increase in upload and download speed over the old architecture. Fixed defects and made retrofits to the code base in 4 applications. Technologies Used: VSS, SQL Server 2000, .NET, VS.NET, ADO.NET, C#, C++, XML COM, DCOM, ADO, VBScript, JavaScript, ODBC, OLEDB, Python, Windows 2000 Server, Terminal Services, HTML, Visio UML, COM+   |                          |
| <b>Sea Bright Insurance (Seattle WA) Senior Software Engineer</b>   | <b>02/2004 – 06/2004</b> |
| Triton – Quote/Policy Management system project: Triton was an N-tier application written in C# (using .NET WinForms) with a SQL Server 2000 for the back end. Responsible for formulation of the n-tier architecture of the system as well as the design of the components in the front, middle and backend tiers. This included the design of stored procedures, .NET C# Business Objects, Data Sets, Data Access Layer objects and GUI components. Responsible for set up of proper “build engineering” procedures and for configuration of VSS to achieve robust build cycles. Mentored other developers in proper coding technique for C#. Technologies Used: VSS, ERWN, SQL Server, .NET, VS.NET, ADO.NET, C#, XML COM, DCOM, ADO, FSO, ODBC, OLEDB, Windows 2000 Server, Terminal Services, HTML, Visio UML, COM+  |                          |
| <b>Intel (Portland OR) Senior Software Developer/Consultant</b>   | <b>06/2003 – 12/2003</b> |
| Global Event Management System (GEMS) project: GEMS was a centralized web-based system that all Intel employees and contractors (world-wide) used to create service requests. As a Senior Software Developer was responsible for GEMS 1.1 development, Configuration Management, Conversion from ASP to ASP.NET, optimized SQL and Stored Procedures, debugged stored procedures and generated documentation. Technologies Used: VSS, ERWN, SQL Server, .NET, VS.NET, ASP.NET, ADO.NET,   |                          |

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| VB.NET, XML COM, DCOM, ADO, FSO, ODBC, OLEDB, ASP, VB SCRIPT, FTP, IIS5, Windows 2000 Server, Terminal Services, HTML, PVCS. Active Perl for .NET, REMEDY.  |                          |
| <b>Intel (Portland OR) Senior Software Developer/Consultant</b>   | <b>03/2003 – 06/2003</b> |
| Worldwide Finished Processor Order Stolen Recovery System project: This system saved Intel millions of dollars every year by reducing the amount of worldwide RMA fraud that involves worldwide thefts of Intel product. The system pulled information from many sources including SQL Server and Teradata, with a final destination in Oracle that served up information to a worldwide Intel audience. As a Senior Software Developer was responsible for all phases of analysis, design, development, implementation, testing, deployment and documentation for full SDLC. Technologies Used: Oracle 9i, DTS, VB6, VSS, ERWN, Silverrun, ETL, Teradata, SQL Server, COM, DCOM, ADO, FSO, ODBC, OLEDB, VB SCRIPT, FTP, SQL Loader, PL/SQL, SQL Navigator, SQL Plus  |                          |
| <b>CNA Insurance (Chicago IL) Senior Software Developer/Consultant</b>  | <b>08/2002 – 02/2003</b> |
| Disability Claims, Contract Management & Duration Advice project: Thick client N-Tiered application comprised of over 50 separate VB projects, 3,000 VB COM objects, 250 forms, hundreds of VB customized controls, and 400+ tables in Oracle 8. Deployed to 8 MTS Servers and 8 Citrix Servers in order to service hundreds of users across the country. As a Senior Software Developer was responsible for debugging and new development in the front, middle and backend tiers. Generated technical design documentation and code for new development. Technologies Used: Oracle 8, MTS, VB6, Far Point, VSS, PVCS, ERWN, DB Artisan, COM, DCOM, ADO, FSO, ODBC, OLEDB, VB SCRIPT,OLE/DB   |                          |
| <b>Intel (Portland OR) Senior Software Developer/Consultant</b>   | <b>06/2002 – 08/2002</b> |
| As a Senior Software Developer was responsible for R&D using version 1 of the Microsoft Operations Manager. Duties included product evaluation and integration analysis for the CQIS team at Intel. Technologies Used: SQL Server 2000, MOM, Microsoft Office 2000  |                          |
| <b>Intel (Portland OR) Senior Software Developer/Consultant</b>   | <b>03/2002 – 06/2002</b> |
| As a Senior Software Developer, was part of a team that was responsible for the design and implementation of large XSD/XML transformations and documents with source data derived from Oracle 8i for the APAC / Vantive Depot Worldwide Interface and numerous data conversions. Solely responsible for DBCS to ASCII conversions as well as numerous complex ETL conversions. Designed and implemented conversion logic for Oracle databases as it related to worldwide customer data. Technologies Used: Oracle 8i, SQL NET, NET 8, SQL Loader, SQL Plus, .NET(EA), Erwin, Visual Source Safe, ADO/OLEDB, Visual Basic 6, & DOM, XSLT, XPATH, XML, SOM.   |                          |
| <b>North Pacific/CGU/One Beacon (Portland OR) Lead Developer/Consultant</b>   | <b>10/2000 – 10/2001</b> |
| <p>Project: Integra Work Management (Nation Wide Intranet Insurance Application)</p> <p>As Lead Developer provided technical assistance to the rest of the development staff (employee &amp; contractor- 25+ total), and interviewed candidates to ensure the client hired quality people. During the reengineering efforts -related to the vendor supplied components, worked closely with upper management (CEOs, Presidents &amp; VPs) along with middle management, project managers and vendor engineers. Traveled to the east coast to help deploy the application as needed. Charged with PVCS management tasks as required. Designed and implemented major Backend enhancements to four SQL Server databases across five environments (20 databases in total) for a nation-wide intranet application. This included data normalization, table design, the design and creation of triggers and stored procedures and security analysis. Migrated from SQL Server 6.5 to SQL Server 7, as well as performed day-to-day DBA tasks. Responsible for Server configuration – this included WEB, APP and Database Servers- all in a WEB Farm.</p> <p>Responsible for the analysis, design and the coding of the Middleware MTS compliant VB6 middleware components for the WEB based system. Responsible for the retrofit/conversion of 50+ components to a compliant MTS transaction state. Identified and solved major design, scalability and performance issues that threatened the roll out of the system. Identified and solved the problems associated with the general design of the system as well as vendor supplied Imaging and WorkFlow components that failed to handle the workload in our N-tier &amp; web environments. The custom solutions engineered stabilized the system and boosted performance- allowing us to roll out on time. Responsible for pushing “the code base” from one environment to another- this included WEB pages, MTS components and MTS packages, and, SQL Server data and structures. Technologies Used: SQL Server 6.5, SQL Server 7, Oracle 8, PVCS, ERWIN, Oracle Enterprise Products, Visual Source Safe, FILE NET VISUAL WORKFLO, FILENET IMAGE SERVICES, MTS, COM+, IIS4, IIS5, NT4, Win2K Server, ADO/OLEDB, Visual Basic 6, Interdev, ASP, JavaScript, VBScript, IE5, Remote Scripting &amp; DOM, as well as FileNET Panagon components.</p> |                          |
| <b>Kaiser (Portland OR) Software Engineer/Analyst/Consultant</b>  | <b>04/2000 – 06/2000</b> |
| Project: Financial System (Client Server): Responsible for the analysis and design of a relational database that would track the financial and supportive information required to support an online budget1206ing system for government contracts in the medical research sector, as well as the front-end GUI logic and design. Worked with CHR analysts, managers, and users to uncover the data streams, processes, interfaces and requirements for the proposed system in multiple regions of the enterprise. Technologies Used: Rational Rose, MTS, SQL Server 7, VB6, Excel, Visual Source Safe, ADO/OLEDB and terminal server for Windows 2000, Windows 2000.  |                          |

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| <b>Automatic Data Processing (ADP) (Portland OR) Software Engineer/Consultant</b>   | <b>01/2000 – 04/2000</b> |
| Project: Jupiter MAP (Client Server/Web): Responsible for making major design contributions as well as several VB deliverable contributions to a Visual Basic/WEB/ N-Tier project that was under a compressed development schedule. Created designs which enabled the development team to effectively develop the package in a team-oriented environment with minimal integration impact. Technologies Used: VB6, ADO/OLEDB, MTS, SQL Server 7 and Clear Case, as well as Sheridan Active X Controls.   |                          |
| <b>Intel Corp. (Portland OR) Software Engineer/Analyst/Consultant</b>   | <b>10/1998 – 01/2000</b> |
| Project –EMSYS (Client Server / Web): Designed and built an Active X Server Reporting Center (Com Component) that serves up reports to authorized users. This component provided users with a WIZARD like GUI to minimize user error and to promote easy maintenance. The component was DCOM capable (remote activation ready) and, also downloadable via the intranet. Built an OCX control that performs dynamic filtering on complex data - the control could be used by any COM client- such as Excel, Word or IE. The OCX was primarily used in the reports served up by the report center. Generated test scripts to test the report wizards, and modified the DB in terms of creating triggers / SPs, modified tables, and wrote DML/DDL scripts to support the new reports.   |                          |
| Project – ERRALITE (Client Server / Web): As the only developer on the team, was responsible for creating a complex failure analysis Report analysis CLIENT/SERVER system that replaced an older VAX /SAS system. Duties included reverse engineering parts of the existing VAX, full blown analysis, design, specification generation, data modeling, data base design, database implementation, front end design, front end implementation, data migration, data conversion, deployment and project management. Screened potential candidates for high tech positions at Intel, as well as to teach individuals with regard to optimal ADO usage. The back end of ERRALITE was SQL Server 6.5 and the front end was VB6. Developed a customizable, automatic data loader that loaded data three times a day from a legacy system into the ERRALITE SQL Server database. Created a WEB integration system that displayed the information from SQL Server on the INTEL Intranet. Technologies Used: VB6, ADO/OLEDB, MTS, SQL Server 7, FTP, BCP, and Visual Source Safe, as well as Sheridan Active X Controls. |                          |
| <b>Comsys (Portland OR) Lead Developer/Consultant</b>   | <b>11/1996 – 10/1998</b> |
| Project: Y2K, HR, staff augmentation. Duties covered a large scope including analysis, design, data modeling, programming and system enhancement. During the last 6 months was involved with complex Y2K testing and software renovations for COMSYS clientele in the Portland area. Y2K duties included the management of Y2K testing and renovations for 7 client/server systems, as well as the analysis, strategic planning and implementation of Y2K renovations for client/server systems. Helped build three internal applications for COMSYS using Visual Basic, Delphi, Access SQL/Server and Interbase5. Involved in a think tank that formulated Y2K strategies for client/server systems and legacy systems in the Colorado Springs division of COMSYS. Technologies Used: VB6, ADO/OLEDB, MTS, SQL Server 7, FTP, BCP, and Visual Source Safe, as well as Sheridan Active X Controls, Oracle, SQL NET, SQL Plus, Delphi, Interbase, Lotus Notes.   |                          |
| <b>Smith Norris Corp, Product Development Lead (Pleasanton CA)</b>  | <b>03/1996 – 10/1996</b> |
| As the Product Development Lead, was responsible for managing developers, priorities and tasks of the development department in accordance with industry standard techniques. This included establishing version control, introducing proper coding standards, executing structured code reviews, maintaining existing code, developing deployment strategies for various production environments, setting budgets, traveling throughout the Pacific Northwest to meet with clients concerning issues, product improvements, and for gathering requirements for future solutions. Technologies Used: ODBC, VB3, VB4, Diamond Head Imaging, Oracle(all tools), Erwin, Visio, Exchange, SQL Server, VBX, OCX, SQL NET, Crystal Reports  |                          |
| <b>Symantec Corp (Eugene OR) Senior Technical Analyst/Programmer</b>  | <b>11/1994 – 03/1996</b> |
| Senior Technical Engineer at Symantec, was responsible for providing and delivering world class technical support to external MIS departments- as well as to individuals, with regard to Symantec products- network and standalone. Last project- at Symantec was to build an internal Visual Basic 4.0(client/server) pilot project called ROVER ASSISTANT. In addition, provided support to other Visual Basic developers, and Symantec technicians, with regard to OLE automation programming techniques and common sense Visual Basic programming techniques as they both related to the pcANYWHERE product line. Responsible for generating quality technical information and- from time to time, training other technicians and employees with regards to products, theory and support strategies. Technologies Used: VB3, ODBC, Oracle, SQL Server, Novell, NT, Crystal Reports, Win32s  |                          |

There are many other projects before Symantec.

## EDUCATION

- 6 Neo4j certifications
- Graduated Alta Loma High School (CA) 1983
- Attended Chaffey College (CA) 1984 – 1985
- Symantec – Novell Networking, Microsoft NT, IBM Networking, UML
- Self-Study- CI/CD training online for Azure and AWS
- Self-Study- Blockchain, Ethereum, Smart Contracts, Solidity, Proof of Work, Proof of Stake, Proof of Authority, Tokens
- Self-Study- Quantum Physics/Mechanics (Schrodinger, Bohr, Einstein, Plank)
- Just like Elon says... you don't need college to master your craft, you just need the drive!



**Thank you for your time and consideration.**  
**Michael Bowman**