BUKKIAH GOLDEN

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FULL STACK AI ENGINEER

Designs and implements generative AI solutions for a no-code AI/ML platform, driving innovation across cloud-native systems. Builds scalable, high-reliability systems using Kubernetes, AWS, GCP, and Azure. Develops Django/Python APIs, microservices, and advanced LLM applications like document extraction and chatbots. Automates infrastructure with Python and Pulumi. Guides teams in architectural decisions and mentors engineers, delivering features from prototype to production.

Highlights of Expertise

- Machine Learning / Artificial Intelligence
- Cloud Computing (AWS, GCP, Azure)
- Kubernetes and Microservices
- Full-Stack Development (Django, Python)
- Generative AI and Large Language Models
- API Design and Implementation
- Automated Infrastructure Deployment
- Technical Decision-Making and Architecture
- Mentorship and Cross-Team Collaboration
- Independent Research and Prototyping

Technical Proficiencies Platforms: AWS, GCP, Azure, Kubernetes, Containerization, Docker, UNIX, Linux, Embedded pSOS, Android, Windows, Mac Development: Python, Django, C, C++, Java, JavaScript, Shell, Perl, Assembly, TensorFlow, Keras, PyTorch, PySpark, Langchain, CrewAl Tools: Git, BitBucket, Jira, Confluence, PyCharm, Pulumi, make, gmake, emacs, grep Hardware: Servers, Embedded Systems, Arduino, Raspberry Pi Network / Telecom: TCP/IP, UDP/IP, SIP, H323, SNMP, Diameter, PSTN Phone Network, CICD, LLM, RAG, LangChain, Prompting, Agents, Agentic Design

PROFESSIONAL EXPERIENCE

SWAYAI BURLINGTON, MA

Remote Senior / Principal Software Development Engineer, 1/2023 to present

Develop and maintain Django and Python APIs for Sway AI's no-code AI/ML platform, a visual solution for machine learning, data scientists, and non-technical users. Design and implement Kubernetes microservices for scalable deployments across AWS, GCP, and Azure. Build generative AI solutions, customizing large language models (LLMs) for document extraction, contract analysis, automated API integration, software help content generation, and custom chatbots. Integrate Langchain, CrewAI, and RAG databases to enhance LLM capabilities. Automate Kubernetes cluster installation using Python-driven Pulumi applications. Apply PyTorch, PySpark, Keras and numerous models for forecasting, classification, and neural network tasks. Contribute to architectural decisions, engineering processes, and product direction. Lead independent skunkworks projects, some integrated into production.

Key Contributions:

- Built a help function and knowledge base using LLMs, Langchain, and RAG to convert documentation into a SQL
 database with an integrated API; completed rapidly and mentored an intern to maintain it while collaborating with the
 UX team.
- Researched and integrated Seldon Core to replace AWS SageMaker for ML inference, implementing an API and Kubernetes microservices under tight deadlines.
- Collaborated with the company architect to design a multitenancy solution, enabling multiple customers on a single Kubernetes cluster.
- Designed and implemented LLM-based applications for document extraction and prompt building.
- Re-architected the platform for cloud-native Kubernetes deployment on AWS EKS, extending to GCP and Azure.
- Developed an automated installation suite for the platform.

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Aruba/Hewlett Packard Enterprise, Nashua, NH

Software Engineer, 4/2020 to 1/2023

Transitioned to API development of data switch management software in Python/Java/others as part of several new initiatives. Developed network switch management software and network tools managing compute and storage resources in data center environments. Work with Project Management, Customer Service, Quality Assurance and stakeholders in multiple departments to set goals and expectations then deliver. Coordinate efforts across multiple related delivery cycles for a product line with many component elements under independent leadership.

Software Engineer, 9/2019 to 4/2020

Recruited by the Software Development Team to contribute to the transition of existing switch software to serve a new set of products and business directions as part of a larger reorganization.

Key Contributions:

- Designed and implemented high visibility customer facing features. Switch Discovery, Switch CLI Access, Integration
 of Third Party Systems and Solutions
- Solve software problems and designs through discussions before any code is written.
- Transitioned from C/C++ embedded system development to Python API development while completely remote with minimal guidance or assistance required.

PLEXXI/HEWLETT PACKARD ENTERPRISE, Nashua, NH

Customer Support Engineer, 4/2017 to 8/2019

Joined the Customer Support Team to create maximum positive impact and assist in the success of new technology introductions at Plexxi. Delivered high touch customer service in a high pressure startup.

Key Contributions:

- Developed tools from scratch to production for installations, suite of troubleshooting tools, a simulator for a core technology,
- Assisted customers via indirect (phone, email, ticketing systems) and directly (voice, video conference and in person) to clear issues and resolve problems to enable their activities and improve the product line.

Sonus Networks, Westford, Massachusetts

Principal Software Engineer, 4/2015 to 4/2017

Promoted to Design, scope, code, test and support features of the Sonus product line. Collaborate with Software Developers, Quality Assurance, Customer Support, and Sales to deliver expected features that exceed expectations.

Key Contributions:

• Call trace enhancements, collaboration for billing system with Microsoft.

Sonus Networks, Westford, Massachusetts

Principle Software Sustaining Engineer, 10/2011 to 4/2015

Promoted to maintain code and resolve difficult problems independently in a high pressure contract bound environment. Resolve issues and defects related to data management, memory management, internal subsystem communication, network communications, scalability, specification compliance, reliability, redundancy, fault tolerance, error reporting, logging, system recovery, live update, and database handling.

Key Contributions:

- Delivered product stability across 12 releases during major platform transition, simultaneously improving product performance; programmed drivers, bus / network communication, logic, and large-scale data processing functionality.
- Championed the alignment of product engineering and sustaining functions, informing new product engineering efforts

through real-world, field-based experience.

Sonus Networks, Locations in the US & Malaysia

Senior Customer Support Engineer, 4/2006 to 10/2011

Held series of support engineering roles, providing on-site and remote customer support for regional / national carrier-grade telecommunications networks across the globe for diverse telecommunication networks, including circuit-based, packet voice, and mature packet-based networks.

Key Contributions:

- Served as Resident Engineer in Kuala Lumpur, Malaysia, collaborating on deployment, administration, and upgrade of international networks.
 - Designed, installed, and deployed a national-scale network in less than 6 months.
 - Traveled throughout Malaysia to manage network installation, upgrade, and training efforts in collaboration with local systems integrators.
 - Presented training sessions to audiences of 5 to 100+.
- Working from Los Angeles, played an instrumental role in deployment of national-scale wireless networks and telecommunication solutions; served in a 24/7 on-call role.
 - Directed planning, configuration, and implementation of 30+ regional systems; configured and managed servers, routers, switches, firewalls, disk arrays, and UNIX systems.
 - Forged custom tools and techniques to enable rapid troubleshooting, diagnosis, and repair; defined and implemented contingency plans.
 - Delivered training for 20+ internal / customer support engineers across 6 sites, providing instruction in network deployment, troubleshooting, maintenance, and administration best practices.

Sonus Networks, Westford, Massachusetts

Senior Quality Assurance (QA) Automation Engineer / QA Engineer, 6/1999 to 3/2006

Advanced into senior-level QA test engineering role within startup network / telecom developer; led end-to-end testing life cycle for GSX, SGX, and PSX product line. Played instrumental role defining a high quality level for a startup hw/sw network solution that revolutionized how voice is carried world wide.

Key Contributions:

- Designed and implemented custom testing networks, tools, and protocol simulators, facilitating the cradle-to-grave testing cycle for 6 major hardware / software releases.
- Played integral role in developing QA Automation team, workflows, procedures, and training programs; authored QA instructional / training, reference, and procedural documentation.

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ADDITIONAL EXPERIENCE

QA Engineer, 6/1997 to 5/1999 | SHIVA CORPORATION / INTEL CORPORATION, Burlington, Massachusetts

EDUCATIONAL BACKGROUND

Coursework toward Bachelor of Arts in Electrical Engineering – Computer Emphasis

University of Massachusetts, Lowell, Massachusetts | Northeastern University, Boston, Massachusetts

Languages: Proficient in French and Malay

Other Projects: 3D Printer (FDM), 3D Metal Printer, High speed strain gauge with bluetooth, Strain gauge Android App, Embedded Tensorflow ML Language Diff Machine