

# APURVA PATEL

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## EDUCATION

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### University of Illinois - Urbana Champaign

Master's in computer science - Artificial Intelligence Specialization (GPA 4.0) 2024

### University of Iowa

Master's in business administration - Finance and Entrepreneurship (GPA 3.5) 2024

### Iowa State University

Bachelor of Science - Software Engineering (GPA 3.51) 2020

Minor in Cyber Security (GPA 3.81)

## EXPERIENCE

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### NUROCOR, INC. STAFF SOFTWARE ENGINEER

AUSTIN, TX (REMOTE)  
MAY 2019 - PRESENT

Dedicated and experienced Staff Software Engineer with a strong background in developing cutting-edge software architecture, internal project libraries, and conducting innovative research. Proficient in participating in software design and code reviews, project planning, supporting agile methodologies, and providing leadership through team management and training. Adept at collaborating with cross-functional teams, assisting in the QA and DevOps processes, and successfully releasing software to customers. Highly skilled in a diverse tech stack, ensuring the delivery of robust and scalable solutions.

- Spearhead the design and development of software architecture that meets high-performance, scalability, and reliability requirements.
- Architected, developed, and maintained core application with team effort.
- Create and maintain internal project libraries to accelerate development and ensure code quality.
- Engage in research activities to explore emerging technologies and incorporate innovative solutions into ongoing projects.
- Actively participate in software design reviews to ensure that software solutions align with project goals and best practices.
- Conduct thorough code reviews to maintain code quality, improve coding standards, and mentor junior team members.
- Collaborate in project planning, including defining scope, estimating timelines, and setting milestones for successful project execution.
- Support and facilitate the Agile methodology, ensuring effective project management and timely delivery.
- Assist the Quality Assurance (QA) team during the testing phase to identify and resolve defects and ensure software reliability.
- Collaborate with the DevOps team to streamline the release process, automate deployment, and enhance system stability.
- Oversee the release of software to customers, ensuring smooth deployment and minimal downtime.

**Language:** Java - Quarkus Framework, NodeJS, Python

**Containerization:** Docker, Kubernetes, Rancher

**Version Control:** Git

**Quality Assurance:** Zephyr Scale, Apache JMeter

**Data Storage:** Elasticsearch, PostgreSQL, Arango DB

**Product Management:** Jira, Confluence

**DevOps:** AWS, Kibana, Grafana

**Automation:** GitOps

**API Development:** RestAPI, GraphQL

**Event Messaging:** RabbitMQ

### IOWA STATE UNIVERSITY

#### GRADUATE RESEARCH ASSISTANT - DR. QAIO DAJI

AMES, IA

AUG 2020 - MAY 2021

- Engaged in research to analyze and understand cyber-physical attacks targeting IoT devices, focusing on smart cameras and switches.
- Coached and supervised a team of senior undergraduate students, providing guidance and mentoring throughout the process of breaching and mitigating real-world physical attacks on IoT devices.
- Designed, documented, and implemented a cyber infrastructure to support university students' participation in cyber defense competitions, enhancing their training and practical skills.

- Designed and developed the Farm Insurer mobile application, a critical tool for insurance professionals to streamline their operations and enhance customer service.
- Conducted comprehensive research and documentation on In-App browser capabilities, ensuring the application's compatibility with various web-based resources and services.
- Engineered and integrated online payment capabilities into the application, simplifying premium payments for policyholders and reducing administrative overhead.
- Implemented real-time emergency availability features within the app, enabling insurers to respond swiftly to critical situations and provide immediate support to policyholders.
- Played a pivotal role in achieving significant cost savings for Farm Bureau Financial Service. The published application led to annual savings of \$200,000 by streamlining insurance processes and reducing manual workload. Additionally, the app improved insurance handling capabilities by 30%, resulting in faster and more efficient service delivery.

## TECHNICAL SKILLS

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<b>PROGRAMMING</b>	Java, Python, C, C++, JavaScript, MATLAB, R
<b>DATA STORAGE</b>	PostgreSQL, Neo4j, MySQL, ArangoDB, MongoDB, Elasticsearch, Kibana
<b>DEV-OPS</b>	AWS, Kubernetes, Docker, GitOps, MLOps
<b>PRODUCT MANAGEMENT</b>	Jira, Confluence
<b>QUALITY ASSURANCE</b>	Zephyr Scale, Apache JMeter
<b>MACHINE LEARNING</b>	Kubeflow, TensorFlow
<b>PIPELINE AND VERSION CONTROL</b>	Git, Jenkins, SonarQube
<b>API DEVELOPMENT</b>	GraphQL, RestAPI

## ACTIVITIES & CERTIFICATIONS

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### COLLINS AEROSPACE CAPSTONE PROJECT ARTIFICIAL INTELLIGENCE FOR REQUIREMENT ANALYSIS TOOLS

CEDAR RAPIDS, IA  
AUG 2019 - DEC 2019

- Led the design and architecture of the AI system, ensuring that it met the rigorous requirements of the aerospace domain. This involved understanding complex technical specifications and translating them into an effective AI framework.
- Spearheaded the development of a sophisticated Natural Language Processing module to process extensive sets of textual data. This module enabled the AI system to comprehend and extract crucial information from technical documents and requirements.
- Developed and implemented cutting-edge machine learning algorithms, including word2vec and swarm intelligence, tailored to the unique demands of the aerospace domain. These algorithms empowered the AI system to perform advanced requirement analysis, improving precision and efficiency.
- Reference: <https://sddec19-08.sd.ece.iastate.edu>

## CERTIFICATION

- MLOps (Machine Learning Operations) Fundamentals [[coursera.org/verify/HDVC6LGHFN6F](https://coursera.org/verify/HDVC6LGHFN6F)]
- ArangoDB Certified Professional [Certification #: CLRVYBVQSY-KVQZHJVH-XSWXYWPXXP]
- A.I Series: Introduction to Clinical Data [[coursera.org/verify/R3JT4ZGURA3F](https://coursera.org/verify/R3JT4ZGURA3F)]
- A.I Series: Introduction to Health Care [[coursera.org/verify/6SA5PSRGJFNJ](https://coursera.org/verify/6SA5PSRGJFNJ)]
- Introduction to TensorFlow for Artificial Intelligence, Machine Learning and Deep Learning [[coursera.org/verify/KP9LXFCTNXU3](https://coursera.org/verify/KP9LXFCTNXU3)]