

# RAJVI PATEL

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## EDUCATION

### ARIZONA STATE UNIVERSITY

#### *Master of Science in Computer Science*

Relevant coursework: Algorithms, Software Security, Cloud Computing, Software Project/Process and Quality Management

Tempe, AZ, United States

Jan 2024 - Dec 2025

### AHMEDABAD UNIVERSITY

#### *Bachelor of Technology in Information and Communication Technology*

Ahmedabad, Gujarat, India

Jun 2017 - May 2021

## TECHNICAL SKILLS

<b>Fundamental Concepts:</b>	Design Patterns, Data Structures and Algorithms, Operating Systems, OOP Concepts
<b>Programming Languages:</b>	Java, Python, JavaScript, Typescript, Golang, C++, C#, C, SQL
<b>Web Technologies:</b>	React.js, Angular, Node.js, Vue.js, GraphQL, AJAX, Redux, Flutter, HTML, CSS, Bootstrap
<b>Databases:</b>	PostgreSQL, MySQL, MongoDB, SQLite, Elasticsearch, Firebase, Google Cloud's BigQuery
<b>Tools and Frameworks:</b>	Elasticsearch, Logstash, Kibana, Splunk, Keras, Tensorflow, NLTK, AWS, Jira, Docker, Cypress

## PROFESSIONAL EXPERIENCE

### DigInG, Arizona State University

Tempe, AZ, United States

#### **Software Engineer** | *Python (Django), JavaScript, Vue.js, PostgreSQL, RESTful APIs*

Feb 2024 - Present

- Optimized **MongoDB** queries, leading to a noteworthy 20% reduction in response times and enhanced performance.
- Improved map load times by implementing asynchronous data fetching and paginated API to handle 4GB+ of data.
- Developed **RESTful APIs**, performed integration and unit testing using **PyTest**, achieving 10% higher test coverage.
- Implemented **JWT**-based token authentication in Conceptpower, enabling secure third-party API integrations.

### Crest Data Systems

Ahmedabad, Gujarat, India

#### **Software Engineer** | *Python (Django), React.js, Docker, Typescript, Elasticsearch, Kibana, Celery*

June 2021 - Nov 2023

- Engineered Splunk to Elasticsearch migration tool using **Python** and **React.js** reducing data transition effort by 88%.
- Enhanced regression test automation with **Selenium**, detecting critical bugs 2x faster and boosting release stability.
- Collaborated with 5+ developers to build an OpenAI connector in **Kibana**, integrating advanced analytics capabilities.
- Created Rapid7 integration for **Elasticsearch** streamlining threat detection workflows, resulting in 2.5K+ downloads.
- Utilized **Python** to migrate visualizations and alerts from Sumologic to Elasticsearch, saving 60% infrastructure costs.
- Recognized with the **Crest Achievement Program award** for designing an outlier detection algorithm, reducing false positives and enhancing anomaly detection for over 1 million daily events.

#### **Software Engineer Intern** | *Python (Flask), React.js, GraphQL, MongoDB, Nginx, Docker*

Jan 2021 - June 2021

- Redesign employee portal using **Python** and **React.js** in cross-functional collaboration, optimizing 60% performance.
- Orchestrated the **Docker** deployment strategy, decreasing the deployment time from 40 minutes to 7 minutes.

## PROJECTS

### **Autoscaling System with Dynamic Queue Management** | *Python, Fast API, SQS, S3, EC2*

Oct 2024 - Dec 2024

- Built an autoscaling face-recognition system using **Python** and **Fast API** handling up to 10,000+ requests per hour.
- Devised an autoscaler monitoring **SQS** queue length to dynamically scale instances for efficient processing.

### **Internet Radio - Multicasting multimedia over IP** | *C, GTK, FFmpeg, Multithreading, Fullstack*

Nov 2023 - Dec 2023

- Implemented IP Multicast functionality in **C**, integrating socket programming for Internet Radio with 5 stations.
- Developed a GUI reducing latency by 30% through optimized socket communication and multi-threading.

### **Predicting Thalassemia Transmission Using Markov Processes** | *Java, MATLAB, Probability*

Mar 2023 - Apr 2023

- Built a predictive model using Markov processes with 92% accuracy for thalassemia inheritance.
- Simulated 1000+ parental genotype scenarios for genetic counseling insights.

## ACHIEVEMENTS

- Honoured as **Elastic Bronze Contributor 2024** for resolving 180+ issues in the Elasticsearch open source repository.
- **Elastic certified engineer** with expertise in installing, managing clusters, and developing advanced search solutions.