

# KOUSHIK KASHETTY

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## SUMMARY

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Software Engineer with 4+ years of experience building solutions in Python, Java and JavaScript. Skilled in enhancing and maintaining software, implementing bug fixes and designing new features. Proficient in working with functional teams to deliver customer focused solutions and capable of quickly adapting to R&D.

## WORK EXPERIENCE

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### Aetna-CVS

Software Development Engineer

June 2024 - Present

Project: Claims Processing Platform

- **API Development & Integration:** Developed Nest.js backend services for basic HIPAA-compliant claims handling, helping integrate OAuth2 for simple API security. Supported the team in connecting third-party payment APIs and ran initial load tests to ensure stability during normal usage.
- **Frontend Enhancements:** Built React.js components for claims dashboards, using Redux for straightforward state handling. Modified a UI elements, which reduced load times from 4 seconds to about 2.5 seconds based on team metrics.
- **Data Management & Async Processing:** Designed MongoDB schemas for data storage, assisting with migrating around 100,000 records from older systems without issues. Supported setting up RabbitMQ for basic async claim checks, which cut down delays by 35% and added simple user notifications.
- **DevOps & Deployment:** Containerized with Docker and involved with Kubernetes deployments. Joined a troubleshooting for a pod issue, reviewing ELK logs to support a rollback across two clusters.
- **System Design & Monitoring:** Worked with the team on microservices setup for claim routing, including JWT for internal authorization. Configured Prometheus for alerting on slow queries, contributing to fixes on three areas that improved throughput by 12%.

### Verizon

Software Engineer

Aug 2023 - May 2024

Project: Network Customer Portal

- **Frontend & UI Development:** Developed React.js components, adding WebSockets for real-time updates. Fixed UI by optimizing Redux parts, reducing memory use by 40% with team input.
- **Backend Services:** Built Node.js microservices using Nest.js for user profiles, setting up REST APIs with OAuth2 security. Supported migration tasks from old systems, ensuring data flowed correctly and dropping response times from 800ms to 300ms.
- **Database & Data Handling:** Collaborated with cross-functional team to model MongoDB collections for logging customer interactions, adding indexes for querying over 1M records and fixed data inconsistencies via batch updates, stopping about 200 duplicates and keeping accuracy at 99.9%.
- **Async & Event Processing:** Configured Kafka topics for network outage notifications. Assisted in debugging a backlog by helping re-balance partitions
- **DevOps:** Converted modules of application into Docker containers and assisted with Kubernetes setups for testing environments, using Terraform for AWS provisioning. Contributed to refactoring a Jenkins CI/CD pipeline, adding tests that caught bugs early and reduced deployment issues by 30%

### OwlSpark

Backend Engineer

May 2022 - Aug 2022

- **Candidate Assessment Module:** Delivered a candidate assessment module, integrating voice and video analysis with React.js, Django, Generative AI and openCV, achieving a candidate satisfaction rating of 4.5 out of 5.
- **Golang Microservices:** Developed Golang microservices to assess candidate profiles and match them to job openings, leveraging Docker and Kubernetes for deployment, resulting in a 60% improvement in processing speed and accuracy.
- **Messaging Architecture:** Engineered lightweight messaging architecture with Django Channels, Web Sockets, Redis with low latency.

- **Monitoring and Analytics:** Monitored pod and container statistics by implementing Prometheus and Grafana to collect analytics and identify issues, leading to a 20% cost savings in resource utilization.

## WarrantyMe

Software Engineer

Aug 2019 - June 2021

- **UI Development:** Designed and developed reusable React.js components using Hooks and Context API, creating a modular UI architecture.
- **Dashboards:** Built real-time analytics dashboards with React.js and D3.js, enhancing system performance visibility and user engagement. Implemented secure OAuth 2.0 and JWT-based authentication across the frontend, protecting access to dashboards and APIs for 400+ users.
- **API Integration:** Developed RESTful APIs using Flask and PostgreSQL to support real-time data operations for user and admin features. Integrated third-party APIs to extend platform functionality, resulting in improved customer experience and retention.
- **Infrastructure Automation:** Deployed applications on AWS EC2 and automated infrastructure provisioning using Terraform, reducing environment setup time by 50%.
- **Monitoring:** Monitoring with ELK Stack and AWS CloudWatch, enabling proactive issue detection through real-time log analysis and alerts.

## PROJECTS

### Project Joystick - AtSign

- Implemented an IoT device using ESP32. Data transmission to a Java application using the AtSign protocol, enabling real-time data analysis.

### Biomedical Signal and Image Processing - University of Massachusetts, Boston

- Processed multi-modal biomedical datasets (EEG, fMRI, X-ray, PET) and corrected imaging artifacts across 6 modalities, enabling accurate cross-modality feature alignment and improving diagnostic model accuracy by 18% in evaluation benchmarks.

### ChatBot Engine -McDonald's Company

- Used Python, Rasa, and Flask. Employed NLP techniques to enhance user interaction. Used version control with Git.

### Crime Prediction Using Machine Learning - SNIST

- Developed a supervised learning model using TensorFlow, predicted with 90% accuracy. Used Matplotlib to create data visualization.

## EDUCATION

### University of Massachusetts, Boston

Master of Science, Computer Science - GPA: 3.7/4.0

Aug 2021 - May 2023

### Sreenidhi Institute of Science and Technology

Bachelor of Engineering, Computer Science - GPA: 3.7/4.0

Aug 2016 - June 2020

## SKILLS

<b>Languages &amp; Web Technologies</b>	: Java, Python, JS, Typescript, Spring Boot, React.js, Node.js, Next.js, Django, Golang, SQL
<b>Frameworks &amp; Methodologies</b>	: Microservices, Agile, REST, OAuth2, JWT, Spring Security, Websockets, JUnit, Jest, Cypress, Nest.js
<b>Tools</b>	: GitHub, Apache Kafka, Kibana, Rabbit MQ, Redis, Git, Maven, Nginx, ESP32
<b>Cloud and DevOps Technologies</b>	: Terraform, Google Cloud Platform, Docker, Kubernetes, AWS(EC2,S3), Prometheus, Grafana, Jenkins, ELK
<b>Databases</b>	: Oracle, MySQL, MSSQL, Postgres, Cassandra, MongoDB
<b>Machine Learning and Data Science</b>	: Rasa, Gen AI, openCV, TensorFlow, NLP Techniques, Supervised Learning, Matplotlib