

Ketan Sarda

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Education

University of California, Irvine

Dec 2025

Master of Computer Science

Coursework: Operating Systems, Artificial Intelligence, Data Structures & Algorithms, Computer Architecture

MES College of Engineering, Pune, India

May 2022

Bachelor of Engineering, Computer Engineering (Honors in Data Science & Statistics)

GPA 3.8/4

Technical Skills

Languages: Python, C, C++, Java, SQL, JavaScript, TypeScript, HTML & CSS

Tools: REST APIs, Angular, React, AWS, Microsoft Azure, Git, Docker, Kubernetes, Jenkins, Linux, Android

Technologies: Cloud Computing, Object Oriented Programming, Distributed and Parallel systems, CI/CD

Work Experience

UCI Beall Applied Innovation

Irvine, CA

Software Developer, Retrieval-Augmented Generation

Oct 2024 - Present

- Develop and maintain front-end interfaces integrated with AWS back-end systems (S3, Bedrock, Opensearch) to enhance AI-enabled portals
- Implement vector embeddings and deploy AI tools using Python and LLM, improving data retrieval, searchability, chatbot integration, and user interaction for accurate and efficient query responses

Persistent Systems

Pune, India

Senior Software Engineer, HealthCare & Life Sciences

Jun 2022 - Aug 2024

- Architected and implemented a suite of 5 reusable web components with React, HTML and Stencil JS, which accelerated development across 7 applications within a large mono repository
- Effectively reduced API response time by 66.67% (from 5.7s to 1.9s) for 100 concurrent users by optimizing product filtering in Java
- Improved front-end performance in Angular, reducing API calls by 25% using efficient model, service, and pipe updates. This resulted in a more responsive UI and potential cost savings of around 12%
- Automated 147 test cases with Protractor and Jasmine, while achieving over 95% test coverage
- Developed and integrated a chatbot using OpenAI APIs and AWS for automating test case generation for Python, Java & TypeScript with prompt engineering on VS Code

Software Engineering Intern

Jan 2022 - Jun 2022

- Built a real-time stock tracking system leveraging Angular, integrated with a Real-time API to produce a responsive website displaying charts and data visualization for 500 companies over the past 5 years
- Received recognition as the best performer (Topper for GEMS 2022 Batch)

Projects

MedTranscribe

Feb 2024 - Mar 2024

- Streamlined a medical transcription platform using React, Python, and MongoDB, leveraging IBM WatsonX to achieve a 30% increase in transcription accuracy through real-time processing, disease recognition, medication extraction, customizable reports, and patient record access [Github](#)

Patient Risk Stratification

Apr 2023 - May 2023

- Engineered a web platform with Angular, Python, Flask, & SQL to analyze data from over 46K+ patients for chronic conditions and emergency department visits, calculating risk scores and predicting health outcomes by integrating Scikit-Learn models such as SVM, KNN, and Random Forest [Github](#)

MVNO in a Box

Jan 2023 - Feb 2023

- Delivered a rapid solution for onboarding, branding, white-labeling and AI-driven recommendations and pricing using Angular, Java, Spring Boot, Open API, Mongo Atlas, AWS (EC2S3, AIML, Gateway)
- Awarded Best in Communication & Media and ranked Top 8 Finalists at Persistent System's Global Semicolon Hackathon among 120+ teams

SmartSuggest (Natural Language Processing)

Jan 2022 - Jun 2022

- Spearheaded a product recommendation system using Java, SQL, Deep Belief Network with Bag of Words, TF-IDF, and Cosine Similarity, achieving 93% precision and 90% recall [Github](#)