

Rajat Dhanraj Savdekar

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EDUCATION

University of Southern California

Masters of Science in Computer Science

Relevant Coursework: Algorithms, Web Technology, Data Science/ML, Game Design, NLP

Los Angeles, California

Aug 2024 – May 2026

GPA: 3.6

University of Mumbai

Bachelor of Engineering in Computer Engineering

Relevant Coursework: Computer Networks, Software Engineering, Data Structures, AR/VR

Mumbai, India

Aug 2019 – May 2023

GPA: 3.7

WORK EXPERIENCE

Frontend Developer Intern

World Salon

Jun 2025 – Aug 2025

Los Angeles, CA

- Built end-to-end **Speaker Portal** (login, profile, events, invitations), streamlining scheduling for 500 speakers and reducing manual coordination by 30%.
- Integrated 20 REST APIs with **Swagger/OpenAPI** and secure auth, cutting API-related bugs by 40% during QA.
- Optimized frontend performance with **Vite** (code-splitting, asset preloading) and maintained clean code practices with GitHub PR workflows and linting.

Teaching Assistant

USC Summer Programs

May 2025 – Jun 2025

Los Angeles, California

- Supported the intensive 4 week, college-level “Discover Engineering” program for 160 high school students.
- Led hands-on workshops using Arduino, LEDs, and engineering design projects to teach real-world problem solving.

Software Engineer

Jalgaon Fruits Sales Cooperative

May 2023 – May 2024

Jalgaon, India

- Digitized procurement and inventory workflows, replacing manual logs with a **web-based system** for 150 daily users, reducing errors and enabling faster farmer payments.
- Refactored critical modules from a legacy PHP monolith into **Flask microservices**, improving system responsiveness and simplifying maintenance of procurement and order-approval processes.
- Introduced **Docker containerization** and **CI/CD pipelines (GitHub Actions)** to stabilize deployments and accelerate release cycles by ~30%, ensuring reliable operations during peak harvest periods.
- Built **React** and **Flask admin dashboards** with real-time analytics on stock levels, demand trends, and pending payments, helping management reduce spoilage and improve transparency with farmers.

PROJECTS

E-Commerce Product Discovery Platform – React, Redux, Node.js, Webpack, MongoDB

Aug 2025

- Designing a global-scale product discovery web app with search, filtering, recommendations, and product pages.
- Planning optimizations for bundle size reduction, code-splitting, and accessibility to ensure a mobile-friendly, high-performance experience.

DSA Visualizer Series – Manim, Python

May 2025

- Created 10 animated explainers for algorithms and data structures, focusing on step-by-step visual clarity.
- Applied motion graphics to improve comprehension and retention for community learners.

Full Stack Weather Tracker – Angular, Node.js, Flask, SwiftUI, GCP

Dec 2024

- Built weather apps across web and iOS with autocomplete search, forecast visualization, and location favorites.
- Developed RESTful backends with Node.js/Flask and deployed scalable services on Google Cloud Platform.
- Designed modular UIs in Angular, SwiftUI, and plain JavaScript to compare frameworks and optimize performance.

Medical Transcript Classifier – NLP, Transformers, Flask, [Publication]

Aug 2023

- Built a real-time classification system using TF-IDF & transformer models (92% accuracy) for transcript analysis.
- Integrated Google Speech-to-Text with Flask backend to support live voice input and instant predictions.

Image Texture Analysis with GLCM – MATLAB, Image Processing, [Publication]

Feb 2022

- Built a GUI tool to compute texture features (contrast, entropy, homogeneity, correlation) from images.
- Applied statistical feature extraction to enable classification in agriculture, medical imaging, and satellite analysis.
- Recognized with 10+ citations in IEEE and Springer Nature papers, demonstrating relevance and research impact.

SKILLS

• **Languages:** Python, JavaScript/TypeScript, C++, Java
• **Frontend:** React, Angular, Redux, Tailwind CSS, Vite
• **Cloud/DevOps:** Google Cloud Platform, Firebase, Vercel, Docker, GitHub Actions

• **Databases:** MySQL, MongoDB, PostgreSQL, SQL
• **Backend:** Node.js, Flask, Django, OpenAPI, REST APIs
• **Testing/Quality:** Jest, React Testing Library, Postman