SIMANTINI REMBHOTKAR

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PROFESSIONAL SUMMARY

Software Engineer with 2+ years of experience building intelligent, scalable applications at the intersection of modern web development and machine learning. Proficient in architecting full-stack platforms using Python, JavaScript, React.js, and Flask, with specialized expertise in integrating computer vision models and LLM APIs for production use cases. Strong foundation in system design, API development and performance optimization for real-time ML inference.

SKILL SET

Languages: Python, C/C++, JavaScript, SQL, HTML/CSS
Frameworks & Libraries: Scikit-Learn, Pandas, NumPy, Matplotlib, Seaborn, TensorFlow, FastAPI, Flask, React, Babylon.js, Three.js, WordPress
Databases: PostgreSQL, MongoDB, Neo4j, SQL
Tools & Software: Visual Studio Code, PyCharm, Jupyter Notebook, GitHub, Git, Microsoft Office, Figma

EXPERIENCE

Equations Work, *Pune, India* – **Software Engineer**   September 2023 – June 2025

- Developed 3+ full-stack web applications, creating UI/UX wireframes and building responsive frontend interfaces using React.js, HTML, CSS, and JavaScript.
- Built backend services using Node.js MVC architecture, FastAPI, and Flask with RESTful API design, implementing JWT-based authentication and role-based authorization, achieving sub-200ms response times for secure endpoints.
- Built AI-driven news intelligence platform leveraging web scraping (Crawl4AI) and NLP models (BERT) and AI agent orchestration (Crew.AI) for automated article verification and entity extraction. Implemented Neo4j graph database for relationship modelling and built immersive 3D visualizations (Babylon.js) with WebSocket-enabled voice search and Meta Quest3 AR/VR support.
- Architected secure LLM integration layer using Azure API Management (APIM) for OpenAI API orchestration, implementing rate limiting, authentication, and monitoring for enterprise-grade GenAI workflows.
- Led agile development through sprint cycles with daily standups and bi-weekly planning using Azure DevOps, delivering 20+ user stories and features on schedule.

Steinn Labs, *Pune, India* – **Software Engineer Intern**   February 2023 - May 2023

- Developed healthcare web application frontend using React.js, HTML, CSS, and JavaScript for responsive interfaces supporting clinical workflows.
- Built FastAPI backend with PostgreSQL database and RESTful APIs featuring JWT authentication and HIPAA-compliant data management, optimizing query performance to reduce response times by 35%.

PROJECTS

Automated Image Annotation Platform | *Python, SAM, Grounding DINO, YOLOv8, Flask, React.js, OpenCV*
Engineered an end-to-end computer vision platform that automates dataset labelling by integrating Segment Anything Model (SAM), Grounding DINO, and YOLOv8 for zero-shot segmentation and object detection. Implemented a full-stack solution with Flask backend and React.js frontend, enabling users to upload unlabeled datasets and receive production-ready annotations. Achieved 40% improvement in labelling accuracy while reducing manual annotation time by 70% through automated workflow orchestration.

AI-Powered Code Execution Platform | *Python, OpenAI API, Azure APIM, Flask, React.js, Docker, Sandbox Security*
Built a secure, multi-tenant code interpreter leveraging OpenAI APIs through Azure API Management to execute Python code in isolated sandbox environments. Architected a microservices-based system supporting multiple specialized AI assistants for data processing, analysis, and automation tasks. Designed RESTful APIs with Flask and developed a responsive React.js frontend, implementing rate limiting and authentication layers to ensure enterprise-grade security and scalability.

EDUCATION

Texas A&M University, College Station *(GPA: 3.67/4.0)*
Master in Computer Science   August 2025 - Present

Marathwada Mitra Mandal's College of Engineering *(GPA: 3.86/4.0)*
Bachelors of Computer Science   June 2020 – June 2024