

Shubhayan Srivastava

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EDUCATION

University of Southern California

Los Angeles, CA

Bachelor of Science in Computer Science

Aug. 2023 – Dec 2026

- Relevant Coursework: Data Structures and Algorithms, Discrete Mathematics, C++ Programming

EXPERIENCE

Founder

Jan. 2024 – Present

Hera (heradashboard.vercel.app)

Los Angeles, CA

- Founded Hera, an **analytics tool that analyzes air pollutant** data down to the neighborhood level and **suggests the best solutions** to policymakers to reduce air pollution in their area
- **Launched in 15 cities**, improving 45,000+ lives in 2 months
- Developed a **search-driven analytics** system using **OpenAI** and **LangChain**, presented in a **ReactJS dashboard**
- Managed entire **software development lifecycle**, from ideation and design with Figma to development, testing, and deployment with **Vercel**, and **Firebase**

Software Engineer Intern

May 2024 – Present

ThoughtMinds

San Francisco, CA

- Developed an **AI debugging agent**, reducing bug identification time by 170%
- Implemented **multi-agent architecture using LangGraph** to efficiently locate bugs across codebases
- Containerized agent using **Docker** to streamline CI/CD pipelines and enable easy scalability
- Utilized **GPT-4o function calling API** to compare previous bug reports, providing bug fixes aligned with clients' code style guides

Undergraduate Research Assistant

Jan 2024 – May 2024

University of Southern California

Los Angeles, CA

- Developed ML models using VADER and BERT to **predict stock market prices from social media posts**
- Restructured algorithm using AutoTriggER to improve sentiment analysis and entity recognition accuracy by 27%

EV Data Analytics Center Lead

Sept 2023 – May 2024

USC FormulaE Team

Los Angeles, CA

- **Led a team of 5 engineers** to optimize vehicular performance through data analysis of automotive tests
- **Built a C++ dashboard** to display car metrics, communicating with the Vehicle Control Unit via microcontrollers

PROJECTS

College Dining Hall Meal Planning App | *Flutter, Node.js, Firebase, TensorFlow.js*

Jun 2024 – Present

- Developed a mobile app using **Flutter** with a **Node.js** backend, incorporating Firebase Authentication and external APIs for real-time dining hall menu and nutrition data
- Created a **recommendation engine** using **TensorFlow.js** to provide personalized meal suggestions based on users' nutritional goals, as well as **learn users' personal taste over time**
- Currently **beta testing** with 20 users across USC and University of Michigan

Personal AI Assistant iOS App | *SwiftUI, Python, Flask, OpenAI, Pinecone, Firebase*

Feb 2024 – Feb 2024

- Developed iOS app with an **empathetic AI bot** with long-term memory (RAG) using **SwiftUI** and **OpenAI**
- Implemented **Google OAuth** to integrate with users' Google Calendar for **automated scheduling and reminders**
- **Conducted user testing** and collected feedback on 15 users, making data-driven improvements to user experience

TECHNICAL SKILLS

Languages: JavaScript, Python, TypeScript, C/C++, SQL (Postgres), Swift, Golang

Frameworks: ReactJS, NodeJS, ExpressJS, Flask, SwiftUI, SciKit-Learn, PyTorch, TensorFlow, Pandas

Developer Tools: Git, XCode, Firebase (Auth, Firestore, Storage, Functions, Analytics, Crashlytics), MongoDB Atlas, OpenAI, Pinecone, LangChain, Neo4j, Figma, Supabase, Jira, VS Code, Jupyter Notebook, URM/UML Diagrams, UI/UX Design, State Management, Local Storage, Cloud Storage (GCP, Azure, AWS), Prompt Engineering