

Sachin Jain

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Programming Languages: Python, JavaScript, TypeScript, C/ C++, Go, Java, HTML, CSS, SQL

Frameworks: Flask, React, NumPy, Pandas, Node, Express, Next, Angular, Redux Tensorflow, PyTorch

Technologies: Git, AWS (S3, EC2), Postgres/MySQL, ElasticSearch, OpenSearch, Docker, Kubernetes, Linux, MongoDB

Coursework: Data Structures & Algorithms, Object Oriented Design, Computer Systems, Computer Architecture, Software Engineering, Embedded Systems, Logic Design, Discrete Mathematics, Operating Systems.

EDUCATION

University of California Santa Cruz

June 2026

- BS Computer Engineering, concentration in Computer Systems (GPA: 4.0 with Dean's Honor)

WORK EXPERIENCE

Nutanix

September 2024 - December 2024

Software Developer Co-op Capstone

- Developed ETL data pipeline utilizing **OpenSearch - Kubernetes (K8S)**, Filebeat, Logstash, migrating **1100+** gigabytes of data into Dremio-Nessie (Iceberg) data lake.
- Developed **CI/CD** pipeline with Mage AI using python **pandas**, SQL, dbt, transforming **1000s** of JSON files to SQL into Dremio data lake integrated with **Postgres**.

Leucine Tech

June 2024 - August 2024

Software Engineering Intern

- Designing and implementing PostgreSQL databases, streamlining the data management and improving query performance, reducing application load.
- Improved application stability by debugging, fine tuning OpenAI's **GPT-4 API** for converting natural language processing to sql and optimizing Java code, which resolved critical issues improving data processing speed by **15%**.

Tech4Good Lab UCSC

March 2024 - Present

Software Developer - Lead Causeway Dev

- Developed API endpoints using **Angular** with NgRx-Redux including writing Redux selectors and queries to efficiently manage state and handle real-time data synchronization on **Firestore**.
- Authored Testing for the lab using **Jest** and angular testing library, helping developers at the lab develop faster.
- Developed, deployed **15+** containers and components, coordinating with **150+ engineers** using Agile, Scrum practices.

Neuromorphic Computing Lab UCSC

March 2024 - September 2024

Undergrad Researcher - NLP and ML, [Paper](#)

- Developed a tutorial notebook and authored a report **paper** on Event-based Lip-reading to assist researchers in understanding a new approach: the Multi-grained Spatio-Temporal Features Perceived Network (MSTP).

PROJECTS

Chess AI Tutor - Pawn Up! @Winner Cal Hacks 2024 (UC Berkeley) | [Github](#) | [Devpost](#) | (React, Python, Llama)

- Developed an AI chess training platform (React, Express, Flask); won CalHacks ChromaDB with **2000+** participants.
- Engineered semantic chess search using ChromaDB and Gemini embeddings for natural language game queries with real-time move analysis using Llama 3.1 with **Groq** for personalized training and puzzle generation. Won **\$600** as prize.

Climacs| Finalist Hack4Humanity at Santa Clara University | [Github](#) | [Demo](#) | (React-Native, Flask, MongoDB)

- Developed a **React Native** mobile app (Android & iOS) with Python Flask and MongoDB, allowing users to capture and map local flora and fauna on Google Maps. Integrated MongoDB Atlas Vector Search and Gemini 2.0 to simplify species classification, with graphical comparisons to track abundance over time. Qualified for **finals amongst 350 participants**.

Task-Flow | [Github](#) | [Demo](#) | (React-Native, Go, MongoDB)

- Developed a mobile app with **React-Native, Go and MongoDB** for Android and iOS focusing neurodivergent audience to help them prioritize tasks with unique features like ranking algorithm for tasks, pomodoro timer, statistical task view.

Multi-Threaded Server Program | [Github](#) | (C, Regex, semaphores, mutexes)

- Multi-threaded C server with a queue and read-write lock preventing data race, handling **100+ reqs/sec at 50ms latency**.

CONCEPTS

Machine Learning, Data Analysis, Software Engineering, Web Frameworks, Databases, Full stack, Frontend, Backend, Cloud Computing, Parallel & Concurrent Programming, Virtual Memory, Multithreading, REST APIs, NLP, Embedded Systems, Mobile applications development