

Shahene Chaouachi

UC Berkeley junior studying Math and Computer Science | Backend development | Vector search | Python

Profile

Math and Computer Science student interested in backend development, vector search, databases, and practical AI tooling. I am still learning these areas, and I like projects that connect what I study in class to software I can actually build, test, and improve.

Education

University of California, Berkeley - Junior, Mathematics and Computer Science

Current academic interests include linear algebra, probability, numerical analysis, algorithms, and systems-related software.

Technical Stack

Languages	Python, JavaScript, SQL, HTML, CSS
Backend	FastAPI, REST APIs, service design, databases, typed interfaces
Data/Search	Postgres, embeddings, vector indexes, retrieval pipelines, ranking
Tools	Git, shell workflows, notebooks, debugging, project documentation

Projects

Vector Search Engine Lab

Retrieval playground for learning how embeddings, chunking, nearest neighbor search, reranking, and API latency affect search quality.

PrepNest AI

AI-powered study platform idea for turning scattered material into drills, feedback, and targeted practice.

Market Signal Lab

Small data project for exploring market narratives, price movement, and event-driven signals while getting better with APIs and analysis workflows.

Interests

Vector search, Python backend development, databases, AI infrastructure, science fiction, economics, technology history, and math for computing.

Coursework Direction

I am currently focused on linear algebra, probability, numerical analysis, and building stronger software engineering habits through projects.