

Anurag Vatash

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Education

San Jose State University – B.S. Software Engineering Aug 2025 – May 2027

Current coursework: Assembly Language Programming, Software Engineering I, Data Structures and Algorithms

Foothill College – A.S. Computer Science for Transfer Jun 2025

Relevant coursework: Advanced Data Structures and Algorithms, Discrete Mathematics, Computer Architecture and Organization

Projects

Congress Alpha – Congressional Trading Tracker Next.js, TypeScript, PostgreSQL, Python, Flask, Recharts

- Raised Lighthouse Performance to 99/100 (FCP 0.4 s, LCP 0.5 s, TBT 0 ms, CLS 0) by moving client-side transforms to aggregated SQL + server-side rendering
- Reduced ingest 90 -> 27 min via a multithreaded Python downloader with a queue based database writer
- Parsed 8K+ PDFs at 300 docs/min to 97% field accuracy by streaming OCR to an LLM with automated QA
- Prevented excessive API calls and database queries by implementing a 300ms debounce on the React search inputs for both members and assets
- Shipped candlestick, volume, and trade pin charts in Next.js/Recharts backed by a JSON/SQL API

Lester's Arcade Next.js, React, TypeScript, Tailwind, shadcn/ui, Sharp

- Architected 3 deterministic minigames by decoupling the core game loop and state logic from React's render cycle, managing updates via browser APIs and custom hooks
- Implemented client-side sessions and per game leaderboards via localStorage and typed scoring adapters
- Cut first load size >35% with a Sharp based sprite resize and convert pipeline
- Authored reusable timing and input hooks to speed development of new minigames

SJSU Parking Visualization Next.js, TypeScript, PostgreSQL, Recharts, QStash

- Architected a high-reliability data pipeline processing 480 daily scrapes with >99.9% uptime, achieving sub-2-second latency from job creation to database insertion
- Developed an interactive dashboard with Next.js and Recharts, visualizing historical trends by querying pre-aggregated SQL views to ensure fast chart loads
- Built a dedicated system status page using Next.js to provide real-time monitoring of the data pipeline, ensuring user trust in data freshness
- Implemented a system-aware dark mode toggle and ensured WCAG AA accessibility standards, delivering a responsive and user-friendly interface for all students

Skills

Languages: Python, TypeScript, JavaScript, C++

Web: Next.js, React, Flask

Data: PostgreSQL, SQLite, Prisma

DevOps and Tools: Vercel, Docker, Git, Bash, PowerShell