Jiaqi Duan

https://victoria-duan.vercel.app/

jd.victoria.work@gmail.com
408-438-7247

EDUCATION

University of California, Santa Cruz
Computer Science and Engineering, Master of Science (M.S.) — *Expected Apr 2026*
Computer Science and Engineering, Bachelor of Science (B.S.); Psychology, Bachelor of Art (B.A.) — *Dec 2022*

EXPERIENCE

Tech4Good Lab — Santa Cruz, CA
Full Stack Engineer & Development Lead — *June 2023 – Present*
- Led a cross-functional team of 10 engineers and designers to develop Pathways, an AI-powered self-directed learning platform, achieving a **25%** increase in user engagement **within two months**
- Developed prompt solutions and automated workflows with **OpenAI APIs**, enabling a **20%** improvement in user experience through personalized learning paths and adaptive content delivery
- Engineered a recommendation system using vector embeddings and **Pinecone**, implementing **retrieval-augmented generation** that boosted learning efficiency by **30%**
- Conducted **targeted user research** and literature reviews to refine **production prompts** for Pathways, resulting in a **15%** improvement in recommendation relevance and user satisfaction

WayOps — Remote
Backend Developer Intern — *July 2021 - August 2021*
- Collaborated with the development team to ensure project deliverables aligned with WayOps' strategic business objectives, contributing to seamless operational workflows
- Enhanced SQL query performance by **40%** through **indexing, restructuring queries**, and implementing **caching strategies**, reducing latency and enhancing overall data retrieval performance
- Revamped database schema using advanced **normalization techniques**, decreasing data redundancy by **30%** and boosting read/write efficiency across multi-table operations

Code For Fun — Sunnyvale, CA
Coding Instructor — *Feb 2023 - Feb 2024*
- Taught programming fundamentals and advanced concepts to groups ranging from 1 to 300 students, fostering a collaborative and engaging learning environment tailored to varied group sizes
- Designed individualized learning plans using adaptive technologies, achieving a **90%** satisfaction rate among students by addressing diverse skill levels and learning styles
- Created a project-based curriculum incorporating real-world applications, guiding students to build responsive websites, data-driven apps, and automated scripts, enhancing practical problem-solving skills

PROJECTS

Yi — Next.js, Tailwind CSS, Django REST Framework, PostgreSQL
A SaaS application for comprehensive financial and business management
- Implemented secure file uploads for transaction documents, ensuring accurate verification and record-keeping
- Developed table components for real-time financial insights, streamlining account, balance, and deadline tracking
- Developed and optimized **CRUD** functionalities for bank statement management, leveraging **modals** to simplify user workflows and enhance data management efficiency
- Integrated **Chart.js** to create interactive and visually compelling data visualizations, enabling users to conduct in-depth financial analysis and make data-driven decisions with greater confidence

NoteGrid — Next.js, Tailwind CSS, Django REST Framework, PostgreSQL
A note-taking web app with task management and time tracking features
- Developed a customizable calendar for task organization with note-linking feature to enhance productivity
- Integrated **Monaco Editor** to support in-browser code editing with real-time execution via the **Piston API**, featuring syntax highlighting for multiple programming languages
- Utilized **Redux Toolkit** and **RTK Query** for efficient global state management and seamless API integration, optimizing data fetching through caching to enhance performance and reduce load times

SKILLS

- **Programming Languages:** Python, JavaScript, TypeScript, Java, C, C++
- **Web Development:** React, Next.js, SolidJS, Node.js, Django, Django REST Framework, Express.js, Vite, Tailwind CSS, Ant Design, RxJS, Chart.js, HTML, CSS
- **AI/ML/NLP:** Hugging Face Transformers, TensorFlow, PyTorch, Keras, OpenAI APIs, Pinecone, Pandas, NumPy, Matplotlib, Seaborn, Plotly
- **Databases:** PostgreSQL, Firebase, MongoDB
- **Languages:** English (Fluent), Mandarin (Native), Cantonese (Native)