Jason Li

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EDUCATION

UNIVERSITY OF CALIFORNIA, SANTA BARBARA   **Santa Barbara, CA**
Master of Science in Computer Science | AI & VR   Sep 2023 - Jun 2025

UNIVERSITY OF CALIFORNIA, SANTA BARBARA   **Santa Barbara, CA**
Bachelor of Science in Computer Science | Dean's Honor (Engineering)   Sep 2019 - Jun 2023

PROFESSIONAL EXPERIENCE

WESTERN DIGITAL   **San Jose, CA**
Senior Engineer, RSS Firmware Defect Management   July 2025 - Present

- ❖ Refactored and modularized legacy firmware code, abstracting functions into separate files and eliminating suppressions to improve maintainability and scalability.
- ❖ Added comprehensive unit and bench tests to validate functionality, increasing reliability across workflows.
- ❖ Working on HAMR (Heat-Assisted Magnetic Recording) drives, contributing to defect management solutions like MAMBO and MPackWR that enable storage capacities exceeding 40TB.

X-CAMP ACADEMY   **Saratoga, CA**
Computer Science Instructor   Jan 2025 - Present

- ❖ Teach C++ competitive programming courses to prepare students for USACO, covering time complexity, prefix sums, two pointers, binary search, disjoint set union, and greedy algorithms.
- ❖ Designed and taught a custom curriculum for Intro to Game Design with Unity 2D, guiding students through building a platformer game as a foundation for future 3D courses.
- ❖ 1 on 1 tutoring for game jams; one student scored in the top 1% out of 10,000 submissions at the GMTK Game Jam

HUMAN-AI EXPERIENCE LAB   **Santa Barbara, CA**
Research Assistant   Jan 2025 - Present

- ❖ Built a VR classroom prototype in Unity integrated with GPT-4 agents, enabling AI-driven, domain-relevant peer questioning during slide-based lectures.
- ❖ Designed and executed a controlled user study (n=36) comparing VR lectures with and without AI questioning agents, measuring engagement, focus, and learning outcomes.
- ❖ Co-authored and submitted a paper to IEEE VR 2026, showing that AI-driven peer questioning improves knowledge retention and simulates key benefits of classroom social dynamics in scalable online education.

LPL FINANCIAL   **San Diego, CA**
Software Engineer   Jun 2024 - Sep 2024

- ❖ Engineered and deployed new features on the client management web application with HTML, CSS and TypeScript using the Angular framework, enhancing user experience for over 1,000 employees.
- ❖ Supervised a group of 6 interns for the summer capstone project, mentored the team with using GraphQL.
- ❖ Integrated GraphQL APIs into the web application to streamline data fetching, reducing response times by 40% and improving overall performance by allowing a single query to pull data from multiple databases.

CDK GLOBAL   **San Jose, CA**
Software Engineer   Jun 2021 - Sep 2022

- ❖ Crafted a data generation tool in MongoDB and Python, enhancing QA team's load testing efficiency by 40% through a simulation of realistic dealership data scenarios. Leveraged pgAdmin and SQL to streamline data retrieval processes.
- ❖ Constructed a Python API for efficient large dataset access, cutting data retrieval time and reducing code complexity, resulting in a 25% improvement in data processing efficiency.
- ❖ Designed a Python-based ticket alert system, reducing on-call issue triage time from hours to minutes.
- ❖ Resolved 3 security vulnerabilities in Java forms, enhancing database protection and preventing SQL injection risks.

ADDITIONAL INFORMATION

- ❖ **University Coursework**: Object Oriented Design, Software Development, Discrete Mathematics, Dynamic Programming, Computer Organization and Logic Design, Video Game Design, Signal Processing, Operating Systems, Machine Learning & Artificial Intelligence, Computer Graphics, Computer Vision, ML in Networking, Computational Geometry, Advanced Application Development, Android Application Development, Human Computer Interaction,
- ❖ **Technical Skills**: C++, C#, Python, Java, HTML/CSS, SQL, JavaScript, Kotlin, Swift, PostgreSQL, iOS Development, AI/VR
- ❖ **Software and Libraries**: Tensorflow, Angular, Git, React, SpringBoot, Unity, Pytorch, OpenCV, GraphQL, Flask
- ❖ **Languages**: Fluent in Mandarin Chinese (Bilingual), English