KAIXIANG (LUCAS) ZHUANG

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EDUCATION

University of California, Irvine — Expected Graduation Date: June 2026
B.S. in Computer Science; B.S. in Business Information Management — *Specialization in Intelligent Systems | GPA: **3.9***

SKILLS

Programming Languages: Python, Java, C++, C, SQL, HTML, JavaScript, MATLAB
Frameworks: AWS Strands, LangChain, CrewAI, MCP, Agentic AI, Agent Orchestration, Tomcat, Software Architecture
Developer Tools: AWS (Lambda, Bedrock, S3, Athena), Docker, Kubernetes, PostgreSQL, MySQL, Apache, JDBC, Git

WORK EXPERIENCE

Software Engineer — June 2025 – Sep. 2025
Yahoo Finance — *Mountain View, CA*
- Engineered an LLM-powered AI agent for stock valuation using **AWS Bedrock** and **Strands SDK**, enabling users to run finance valuation models in under 2 seconds through natural language prompts
- Orchestrated automated valuation workflows across 6,500+ tickers with third-party data provider **APIs**, **MCP**, and agent orchestration; applied **prompt engineering** and **Pydantic** modeling, and **embeddings-based retrieval**
- Developed ETL pipelines to **S3**, **Athena**, and **PostgreSQL**, optimizing JSON tables for fast, structured data access
- Containerized the microservices with **Docker** and deployed via **AWS Lambda** for scalable, cloud-native execution

Software Engineer — Aug 2023 – Sep 2023
Insigma Technology — *Hangzhou, China*
- Developed **NLP** pipelines with **tokenization**, **NER**, and **semantic search embeddings**, integrating automated retraining workflows to incorporate new regulatory data, which improved **credit risk model accuracy by 20%**
- Applied **SQL**, **Pandas**, and **NumPy** with feature encoding to reduce model noise and improve training efficiency

Equity Research Analyst — Aug 2023 – Present
UCI Student Managed Investment Fund — *Irvine, CA*
- Conducted financial statement analysis and **valuation modeling** across economic trends and sector performance
- Built a portfolio outperforming sector ETF by 4.5%, higher risk-adjusted returns (**Sharpe** +30%, **Sortino** +39%)

PERSONAL PROJECTS

🔗 **Web-Augmented Research Agent** | *LangChain, Pydantic, LLM Orchestration, Prompt Engineering*
- Developed a **web-augmented AI agent** using retrieval-augmented generation (**RAG**) and **prompt engineering** to decompose complex queries, perform live web searches, and deliver structured, source-backed answers.
- Integrated **AWS Bedrock LLMs** with **LangChain** for agent orchestration, tool calling, and multi-step reasoning, while applying structured I/O schemas with **Pydantic** models, ensuring reproducibility and traceable evaluation

🔗 **Fabflix.Life** (E-commerce Simulation) | *AWS, Docker, Kubernetes, MySQL, Web Security, Data Structures*
- Engineered **full-stack architecture**, implementing **20+ backend features** (**REST APIs**, SHA-256 secure login, reCAPTCHA fraud detection, session-based transaction flows, and full-text search with autocomplete)
- Boosted site **performance by 44%,** scaling to 10.5K+ requests per minute through **MySQL connection pooling**, **Apache load balancing**, and containerized deployment on a **Kubernetes cluster** across multiple **AWS** instances

LEADERSHIP EXPERIENCE

Vice President — Oct. 2022 – Present
US Overseas Student Union — *North America*
- Led 25 core team members, expanded membership to 300, and established 27 student chapters reaching over 25,000 international students across North America, hosted large-scale events with 400+ attendees
- Represented the organization at the President Biden–Xi APEC welcome ceremony with national media exposure

RECENT AWARDS

2nd Place – ICS Student Research Symposium (university-wide research showcase) | *UC Irvine* — 2025
ICS Honors Program (selective research-focused track for top CS students) | *UC Irvine* — 2025
Certificate of Recognition (leadership and community impact) | *California State Assembly* — 2023