

Dianella Sy

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EDUCATION

California State University, Fullerton
Bachelor of Science, Computer Science

Expected May 2027

RELATED COURSES

Data Structures, Algorithm Engineering, Operating System Concepts, Object-Oriented Programming, File Structures and Database

TECHNICAL SKILLS

- **Languages:** Python, C, C#, C++, Go, Rust, TypeScript, x86-64 Assembly
- **Web and Frameworks:** CSS, HTML, JavaScript, Node.js, Streamlit, SvelteKit, Unity
- **Cloud and DevOps:** AWS Bedrock, AWS CLI, Boto3, Git, Shell scripting
- **Operating Systems:** ChromeOS, Linux, Microsoft Windows

PROJECTS

MathPath AI – Cal Poly Math Placement Assistant

July 2025

- Developed a **Streamlit**-based chatbot integrated with **AWS Bedrock** and a curated knowledge base to automate answers to **80%** of math placement questions for **5,500+** incoming Cal Poly SLO students, reducing **750+** annual emails and calls, and winning **Third Place** at the 2025 CSU AI Summer Camp Hackathon
- Architected secure email-based sign-in and session management using mock student data, built context-aware logic for course recommendations and MAPE exam eligibility, and enforced separation of concerns to streamline collaboration and maintainability
- Designed a polished, responsible Streamlit UI with custom styling and citation display, leveraging **Python**, **Boto3**, **AWS CLI v2**, **AWS Bedrock**, and **Dotenv**

Tech Stock Dynamics Analysis (Google & Meta, 2012–2022) – Research Project

June 2025

- Engineered a **Python** pipeline to ingest and clean **~5,040** daily closing prices for Google (GOOGL) and Meta (META) from 2012–2022—interpolating 100% of missing values and slashing manual preprocessing time by **75%**
- Applied rolling Pearson correlation alongside Engle-Granger cointegration tests and computed spread statistics to reveal strong short-term co-movement without a long-run equilibrium
- Demonstrated that high correlation does not equate to cointegration—invalidating mean-reversion signals for pairs trading—and delivered risk-aware strategy guidance, noting limitations

Out of this World Cafe

April 2025

- Crafted an award-winning game in **24 hours** at the hackathon, FullyHacks 2025, with **250+ participants**, winning **Best Game Project**
- Implemented a restaurant tycoon video game utilizing **C#** and **Unity**, where a group of animals has been stranded in space for a period of time
- Served the animals ice cream, and if they are satisfied, they will go home with the cafe owner back to Earth

EXPERIENCE

Computer Science Supplemental Instruction Leader

August 2025 – Present

California State University, Fullerton

Fullerton, California

- Lead 2 weekly 75-minute collaborative study sessions for **10-15** students in **Computer Organization and Assembly Language**
- Boost average exam scores by **up to one letter grade** among regular attendees through targeted review activities and active-learning strategies
- Design and create **29** custom worksheets and peer-learning games aligned to weekly lecture topics, enhancing concept mastery

ACM CSUF Webmaster and Open Source Team Lead

May 2025 – Present

California State University, Fullerton

Fullerton, California

- Oversee and enhance acmcsuf.com—CSUF ACM's flagship open-source website—serving **675+** monthly users
- Lead weekly workshops on **SvelteKit**, **Git** workflows, and open-source contribution, guiding **30+** students through their first pull request
- Mentor **10+** student developers in **GitHub** issue triage, code review, and CI/CD best practices