

Francis Padua

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EDUCATION

University of California, Irvine

Bachelor of Science in Computer Science

Irvine, CA

Present – Jun. 2028

Fullerton College

Associate's in Computer Science

Fullerton, CA

Sep. 2023 – Jun. 2025

EXPERIENCE

Embedded Computer Science Tutor

Fullerton College

January 2025 – Present

Fullerton, CA

- Embedded in C++ Programming courses: attend lectures to assist with in-class activities, host 2 weekly tutoring sessions, and coordinate with the professor on topics, pacing, and review focus.
- Improved code correctness and readability for 30+ students per semester by emphasizing step-through debugging, test scaffolds, and a consistent style guide, leading to fewer regrade cycles and cleaner submissions.
- Prepared targeted exercises that helped students visualize arrays, pointers, and basic data structures through short, fun, and iterative challenges.

Undergraduate Researcher

California State University, Fullerton

May 2025 – June 2025

Fullerton, CA

- Screened 9,900+ equity pairs across 5 sectors to find mean-reverting candidates, narrowing to top pairs for backtests by aligning 12 months of prices (225 tickers) and running Pearson correlation + Engle–Granger ADF (Python/statsmodels).
- Cut pipeline runtime and raised reproducibility by splitting duties: Python for yfinance ingestion/cleaning in pandas; C++ for CSV parsing to parallel arrays, correlation, and residual export, then Python for cointegration + simulation.
- Developed the pipeline openly on GitHub, coordinating tasks and code quality with teammates; showcased findings at the CSUF Summer Research Symposium.

Math & CS Lounge Tutor

Fullerton College

October 2024 – December 2024

Fullerton, CA

- Supported 100+ students in Data Structures, Intro C++, Calculus, Linear Algebra, Discrete Math, reducing wait times and unanswered questions by prioritizing issues and sharing quick-start templates.
- Increased solve-rate during sessions by teaching decomposition, error-pattern spotting, and whiteboard coding, helping students move from syntax fixes to conceptual mastery.

Front-End Web Developer

Ena Pragma Consulting

July 2025 – September 2025

Remote

- Redesigned and modernized client websites for excavation and construction companies, improving SEO rankings and user engagement by implementing semantic HTML, optimized image loading, and responsive layouts.
- Developed front-end interfaces for internal business tools, including a KPI scorecard dashboard that visualized employee and department metrics via heatmaps and interactive data views using JavaScript and React.
- Accelerated prototyping cycles by 40% through AI-assisted development (GPT-4o, Claude, Gemini, Cursor) for code scaffolding, content generation, and UI iteration.
- Collaborated cross-functionally with design and backend teams to align brand identity, performance, and accessibility goals, resulting in faster load times and improved client satisfaction.

TECHNICAL SKILLS

Languages: Python, C/C++, SQL, JavaScript, TypeScript, HTML/CSS

Developer Tools: Git, GitHub, VS Code, Cursor, Jupyter Notebook

Libraries: pandas, NumPy, Matplotlib