Francisco X. Morales Puente

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Education

Pomona College Expected May 2026

*Bachelor of Arts in Computer Science and Mathematics (**GPA: 3.986 / 4.00**)* *Claremont, California*

- **Relevant Coursework:** Algorithms, Neural Networks, Data Analytics and Visualization (HTML), Computer Systems (C), Data Structures and Advanced Programming (Java), Intro to CS in Python, Discrete and Functional Programming (Haskell), Linear Algebra, Combinatorics, Deterministic Operations Research, Intro to Biostatistics (R), Mobile Robotics (C++), Differential Equations, Calculus II & III, Computational Statistics, Probability
- **Awards and Honors:** ACM Student Research Competition (Undergraduate Division) – 3rd Place (Tapia Conference 2025), Pomona College Scholar Designation, Questbridge Match Scholar, Dell Scholar (DATES), Summer Undergraduate Research Project, Society of Hispanic Professional Engineers (SHPE)
- **Leadership & Mentorship:** Mentored first-year Latinx students in math and CS through Chicano Latino/a Student Affairs. Supported Latinx STEM students by planning tech events and study sessions with 5C Latinx in Tech.

Experience

Accenture June 2025 – August 2025

Tech Architecture Summer Analyst *Austin, Texas*

- Engineered real-time monitoring dashboards in Grafana to visualize application health, JVM performance, and API usage by integrating Prometheus, Loki, and InfluxDB with their own specific query languages.
- Designed end-to-end system design decisions, evaluating trade-offs across scalability, observability, and maintainability to align with long-term technical objectives.

Accenture June 2024 – August 2024

Technology Consulting Analyst Intern *Austin, Texas*

- Developed Anaplan models with a 12-person team of developers and consultants, aligning workflows with client needs while managing Agile sprints, user stories, story points, and JIRA to streamline deployment.
- Optimized processes using advanced Excel functions and created impactful slide decks for executive presentations.

Pomona College January 2024 – Present

Teaching Assistant *Claremont, CA*

- Faciliated code reviews and reinforced object-oriented programming and data structures concepts for 85+ students.
- Supporting students in Discrete and Functional Programming (CSCI054) by delivering educational content on Haskell, facilitating study sessions, and clarifying complex concepts.

Pomona College June 2023 – Present

ARCS Laboratory Research Assistant *Claremont, CA*

- Building precise simulation environments in Unreal Engine 5 and Blender for robotic training, leading Blueprint scripting and integrating Python via a custom OSC plugin for real-time data collection and model training.
- Engaged with scholarly papers & utilized PyTorch and Fastai libraries to enhance model accuracy from 22% to 61.2%.

Projects

P-ickup Ride-Sharing Platform | *Python, Flask, K-means Clustering, Docker, Supabase, AWS* January 2025 - Present

- Led a team in developing an AI-driven ride-sharing application integrating real-time data & optimization algorithms.
- Implemented K-means clustering for route optimization and ride-matching, improving efficiency and wait times.
- Designed the backend infrastructure using Docker & Supabase for data retrieval and scalable model deployment.

Pomona Robotics | *Python, C++* August 2023 - Present

- Founded and led the first robotics team at Claremont Colleges; managed cross-functional programming, hardware, and CAD teams, empowering 70+ students of all robotics skill levels to explore.
- Partnered with UCLA faculty to deliver an outreach robotics workshop, growing community engagement.

Independent Research | *Python, Dlib, OpenCV, Computer Vision* May 2024 - August 2024

- Built a gaze-controlled tele-op robot using Dlib, OpenCV, and Python; applied linear algebra to maintain live user focus and translate gaze into robotic actions.
- Designed and presented a research poster at the Pomona College Summer Research Poster Walk

Technical Skills

Languages: Haskell, Java, Python, JavaScript, TypeScript, C++, C, HTML, R
Technologies: React, Flask, TensorFlow, PyTorch, Node.js, TailwindCSS, Docker, AWS, Spring Boot, MySQL
Concepts: Compiler, Operating System, Virtual Memory, Artificial Intelligence, Machine Learning, Neural Networks, REST API, Database Normalization, Agile Methodology, Git Workflow, Databases, Metric Collections