

Michaela Castro

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EDUCATION

UNIVERSITY OF CALIFORNIA, IRVINE

Bachelors of Science in Computer Science

Irvine, CA

Sept 2024 - Jun 2026

LOS ANGELES PIERCE COLLEGE

Associates in Science and Art

Woodland Hills, CA

Jun 2022 - Jun 2024

Computer Science Major; Received Physics, Math, and General STEM associate degrees

Cumulative GPA: 4.0/4.0; Dean's List 2022-2024, Summa Cum Laude

Relevant Coursework: Object-oriented programming, Data Structures

EXPERIENCE

MATH & COMPUTER SCIENCE TUTOR

Center For Academic Success, Pierce College

Woodland Hills, CA

Jun 2023 - Aug 2024

- Administered tutoring sessions for undergraduate students studying mathematical and computer science subjects such as Calculus, Differentials, and object-oriented programming, helping at least 15 students per day
- Selected as 1 of only 2 computer science tutors, and adapted tutoring methods for remote and in-person formats
- Assisted students in debugging and optimizing code to enhance problem-solving abilities, improving students' project scores by 60%

SOFTWARE ENGINEER FELLOW

Headstarter AI

Remote

Jun 2024 - Aug 2024

- Collaborated and led a team of 3 software engineers in creating 5 diverse projects in 5 weeks, followed by a capstone project, gaining experience in full-stack development
- Completed projects including a CRUD application, a SaaS website, and an AI support assistant, honing skills in APIs and cloud services
- Practiced problem-solving thinking through weekly coding challenges and AI-powered interview preparations

DATA SCIENCE RESEARCH

UCLA/Pierce College

Woodland Hills, CA

Jul 2023 - May 2024

- Connected with professors, graduate students, and scholars from UCLA and around the nation to discuss mathematical principles. to research the efficiency of methods to solve large systems of linear equations
- Developed and implemented 3 major variants of the Kaczmarz method in Python to evaluate its performance and convergence speed
- Conducted simulations of various matrix sizes such as 100 x 100 matrices, and generated graphs using MATLAB and Numpy to interpret the results in a research paper

PERSONAL PROJECTS

FLASH AI

NEXTJS, REACT, MUI, STRIPE, FIREBASE, CLERK

- Developed a subscription-based application allowing users to generate flashcard sets from prompts using Gemini API, reducing flashcard creation time by 90%
- Incorporated user authentication with Clerk and saved flashcard sets via Firebase, protecting user data and managing their flashcards
- Implemented Stripe for monetization, offering premium and free plans for users

YAPPER

REACT, MUI, EXPRESS, MONGODB, NODEJS, JWT, BCRIPT, SOCKET

- Constructed a full-stack social media platform with messaging capabilities using Socket.io and a notification system
- Ensured user privacy and data protection by implementing secure user authorization with Jwt and Bcrypt
- Utilized MongoDB for efficient data storage, supporting user profiles, posts, likes, and conversations

PARKER

REACT, TAILWIND CSS, DAISY UI, AXIOS, JAVASCRIPT

- Integrated real-time parking data in parts of California using LA Express Parking API to keep users up to date with parking availability
- Enhanced user experience by utilizing Tailwind CSS and Leaflet to visualize parking space vacancy, reducing parking time by 80%
- Added search functions allowing users to filter parking spots based on their preferences and planned real-time notifications for vacant parking spots

ADDITIONAL

Technical Skills: C++, Python, Javascript, Java, HTML, CSS, SQL

Libraries & Frameworks: React, Tailwind CSS, Next.js, Express, NumPy, Matplotlib

Languages: Fluent in English; Limited Working Tagalog