James J. Escobedo

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Skills

- Programming Languages: Python, HTML, JavaScript, Typescript
- Tools & Frameworks: Figma, TensorFlow, LightGBM, React.js, Onshape, Grafana
- Other: Public Speaking, Leadership, Collaboration, Graphic Design, Data Analytics

Education

University of California, San Diego

Expected graduation, June 2029 La Jolla, CA

- Majors: Artificial Intelligence, Probability & Statistics
- GPA: —

Competitive Programming & Honors

• Hewlett-Packard Enterprise Codewars 2nd Place Novice Division

Spring 2023 Roseville, CA

ClassSync Awarded Most Innovative by Project Invent (Spring 2024); 3rd Place in Congressional App Challenge (Spring 2024); and Judge's Choice at Little Bang! UC Davis Pitching Competition (Fall 2024)
Davis, CA

Experience

Dual Path Connected Solutions ML Consultant

May 2025 - Present Remote, AZ

- Developed and designed Grafana dashboards to visualize appliance performance and comfortability metrics when integrated with IoT sensors
- Developed and deployed machine learning models to analyze live IoT sensor data, generating real-time performance alerts and actionable insights

EnvisionEd Software Developer, Graphic Designer, Co-Founder

2023 - 2025 Davis, CA

• Spearheaded complete UI/UX lifecycles, from initial wireframing and high-fidelity mockups in Figma to full frontend implementation using React.js, while establishing our organization's visual identity through logo design

ai4genes Researcher

Spring 2024 Davis, CA

- Utilized PyMOL to visualize diseased proteins and their gene mutations to supplement novel UC Davis research
 - Applied Python and AlphaFold2 to further predictions and visualizations about mutation's impact on structure

Projects

ClassSync Automated K-12 Attendance System and UI

2023 - 2025 Davis, CA

- Architected a full-stack facial recognition system in Python to automate and secure student attendance and checkout processes for K-12 schools
 - Executed full-stack development by architecting a scalable backend with Python, Postgres, and SQLAlchemy, and implementing a responsive, modern frontend based on Figma designs using React

Wordle Al Terminal-based Wordle remake w/ smart guesser

July 2025 New York City, NY

• Implemented an intelligent Wordle-solving algorithm that leverages strategic filtering and word-frequency analysis to achieve a solve rate exceeding 90%.

Trading Bot

July 2025 New York City, NY

 Developed a trading bot that utilized weighted-average price strategy for live decision-making for Jane Street AMP's Trading Competition, reaching Top 5 during the competition and generating highest P/L in a single round

Alzheimer's Detector Web app to predict dementia w/ MRI brain images

July 2024 Pittsburgh, PA

• Engineered a hybrid ResNet and LightGBM model to classify Alzheimer's from MRI brain scans and data, achieving approximately 98% accuracy on complex neuro-imaging data

Activities & Leadership

Jane Street Academy of Math and Programming Scholar

Summer 2025 New York City, NY

- Mastered empirically-driven algorithm analysis and rigorous unit testing through a catered programming course
- Developed a robust quantitative toolkit by solving complex problems using advanced combinatorics and number theory

Carnegie Mellon University's Artificial Intelligence Scholars Scholar

July 2024 Pittsburgh, PA

- Engaged in an intensive course on artificial intelligence (Accelerated Course 10-315: Introduction to Machine Learning)
- Presented Alzheimer's Detector project's creation process, final product, and use cases to Carnegie Mellon faculty

Career Technical Education Student Ambassador Program Ambassador, Speaker

2023 - 2024 Davis, CA

- Led outreach initiatives at local schools, engaging over 100 middle school students at a time with presentations on computer science pathways
- Headlined at DJUSD school district's Career Technical Education conference for local industry leaders

Carnegie Mellon University's Computer Science Scholars Scholar

July 2023 Pittsburgh, PA

- Engaged in intensive courses on computer science (Accelerated Course 10-112) and mathematics (Accelerated Course 21-127)
- Presented Cayley Table project's creation process, final product, and use cases to Carnegie Mellon faculty