James J. Escobedo

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Skills

- **Programming Languages:** Python, JavaScript
- **Tools & Frameworks:** Figma, FastAPI, TensorFlow, LightGBM, React.js, Onshape, Grafana, GitHub
- **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:** Not yet available

Experience

Dual Path Connected Solutions ML Consultant May 2025 - Present Remote

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

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 gene mutations to supplement novel UC Davis research on schizophrenia
    - 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 check-out 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 AI 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 Automated Python trader for Jane Street ETC 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, Tutor 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

Competitive Programming & Honors

- **Hewlett-Packard Enterprise Codewars** 2nd Place Novice Division Spring 2023 Roseville, CA
- **ClassSync** Awarded Most Innovative by Project Invent Spring 2024; Davis, CA
  3rd Place in Congressional App Challenge Spring 2024;
  and Judge's Choice at Little Bang! UC Davis Pitching Competition Fall 2024