

# Sean Esla

📍 Los Angeles, CA    ✉ [seanesla1156@gmail.com](mailto:seanesla1156@gmail.com)    🔗 [linkedin.com/in/seanesla](https://linkedin.com/in/seanesla)    🐙 [github.com/seanesla](https://github.com/seanesla)

## Education

---

### Santa Monica College

AS, Mathematics and Computer Science

Jun 2024 – May 2026

*Los Angeles, CA*

- Dean's Honor List; Alpha Gamma Sigma, Phi Theta Kappa, CS Club Vice President

## Experience

---

### Research Intern

*Algoverse*

Jun 2025 – Present

*Remote*

- Implemented clustering methods using Python/JAX for geometric similarity metrics
- Configured grid search experiments; resolved W&B logging issues
- Led validation comparing model results to metrics (purity, silhouette); authored meeting agendas

### Ignite Fellow

*AI4ALL*

Aug 2025 – Present

*Remote*

- Selected for national AI/ML apprenticeship focusing on equity in artificial intelligence

## Technical Projects

---

### RealIBuddy – Real-Time AI Lie Detector (Best AI/ML @ HackCC)

Oct 2025

- Built real-time speech-to-fact-check pipeline with sub-300ms latency using Deepgram STT via WebSocket
- Integrated Perplexity Sonar-Pro for semantic claim verification with confidence scoring and citation tracking
- Reverse-engineered Pavlok API v5 to trigger wearable feedback; designed SafetyManager with rate limiting
- Built event-driven Node.js/TypeScript backend with SQLite persistence and Vanilla JS frontend with Web Audio API

### Water Quality Prediction System – ML Pipeline & Web App

2025

- Architected end-to-end ML pipeline integrating USGS and EPA APIs for 93,000+ water monitoring stations
- Trained Random Forest models (98.9% accuracy) for water safety classification with SHAP explainability
- Built Streamlit dashboard with Plotly visualizations; implemented NSF-WQI domain calibration
- Developed fairness analysis scripts to identify data coverage gaps in underserved communities

### codereview pr – AI Code Review Agent (Runner-up @ shortesthack.com)

Aug 2025

- Designed automated code review AI agent for GitHub pull requests

## Technical Skills

---

- **Languages:** Python, JAX, TypeScript, JavaScript, SQL
- **Frameworks & Tools:** React, Streamlit, Scikit-learn, Pandas, Plotly, Node.js, WebSocket, SQLite, GitHub, Weights & Biases, Poetry
- **Specializations:** Machine learning, Real-time systems, API integration, Data pipelines, Technical writing

## Certifications & Honors

---

- **Best AI/ML Award** – HackCC Hackathon (RealIBuddy) Oct 2025
- **Private Pilot License** – FAA Certificate #4729973 Aug 2023
- **Dean's Honor List** – Santa Monica College 2024 – Present