David Portillo

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Software engineer with a focus on machine learning and system-level development. Experienced in building low-level tools in C and developing AI-driven solutions with Python. Skilled at connecting backend logic to intuitive interfaces and solving complex problems collaboratively.

- EDUCATION -

Diploma in Computer Science and Machine Learning Expected Graduation: Dec. 2025

Atlas School, Tulsa, OK

A peer-driven, project-based 20-month program focused on applied machine learning and software engineering fundamentals. Emphasized C and Python, data structures, algorithms, and system-level design. Built forecasting models with NumPy, Pandas, and scikit-learn, and developed fullstack apps using HTML, CSS, JavaScript, and SQL. Projects were completed in Unix environments with Git/GitHub and Agile workflows.

- PROJECTS -

Well-Log Digitizer - Project manager/ ML Engineer (github is private)

- Built a web application that automatically digitizer well-logs (.TIFF) into an .LAS file
- Built a custom OpenCV pipeline to extract the desired curve data
- Partnered with Nexus Energy Partners which allowed us to use real world data

Object Detection with YOLOv8 – ML Engineer Github Dec. 2024

- Built object detection pipeline using YOLOv8 to identify items in custom image datasets
- Fine-tuned pretrained models and evaluated performance using mAP, precision, and recall
- Documented reproducible workflows in annotated Jupyter notebooks

Hyperparameter Tuning for Model Optimization – ML Engineer Github July 2025

- Applied grid and randomized search to optimize supervised learning models
- Evaluated performance using cross-validation and classification metrics
- Compared tuning strategies and documented results in Jupyter notebooks

RNNs for Sequential Forecasting – ML Engineer Github June 2025

- Implemented RNNs and LSTMs for time-series forecasting using PyTorch
- Structured training pipelines with hidden state management and batch handling
- Visualized predictions and documented model behavior across epochs

- SKILLS -

Programming Languages: Python, JavaScript, SQL, Databricks,

Frameworks & Tools: PyTorch, scikit-learn, OpenCV, Ultralytics, Git, Jupyter, ETL, Lasio, FastAPI, Numpy

Machine Learning: RNNs, LSTMs, YOLOv8, Hyperparameter Tuning, Clustering

Languages: English (native), Spanish (conversational)