

## JESUS A. GARCIA

Walnut, CA • (909) 747-4497 • jesse@cocovision.ai LinkedIn • GitHub • Portfolio

### Professional Summary

Data Scientist and Machine Learning Engineer with professional experience leveraging Python, SQL, and data analysis to optimize systems and drive data-driven decisions. Combines a deep foundation in network systems with advanced training in predictive modeling and MLOps from a forthcoming M.S. in Computer Science at UCLA. Proven ability to build and deploy end-to-end ML solutions, from data pipelines to interactive applications, to solve complex business problems.

### Technical Skills

**Machine Learning & AI:** PyTorch, TensorFlow, Scikit-learn, Pandas, NumPy, NLTK, OpenCV

**Data Engineering & Databases:** SQL, AWS Glue, Apache Airflow, Amazon Redshift, Snowflake, MySQL, PostgreSQL, MongoDB

**Languages & Cloud:** Python, R, C++, Java, AWS (S3, EC2, SageMaker)

**Tools & Methodologies:** Git, Docker, CI/CD, Agile, Data Visualization (Tableau, Matplotlib, Seaborn)

### Experience

#### Network Systems Analyst

*June 2021 – Present*

*Whittier Union High School District / Whittier, CA*

Engineered and maintained data pipelines for network monitoring tools, processing over 50GB of log data daily to ensure system reliability and support data-driven infrastructure decisions.

Developed Python scripts to automate the monitoring of security events and system alerts, creating a proactive threat detection system that reduced security incidents by 25%.

Analyzed network traffic data and system logs from over 2,000 nodes to identify performance bottlenecks and security vulnerabilities, leading to a 15% improvement in network uptime.

#### Network Systems Analyst

*Feb 2021 – June 2021*

*Yucaipa-Calimesa Unified School District / Yucaipa, CA*

Performed statistical analysis of network performance metrics to identify trends and recommend technology upgrades, resulting in a 15% increase in network scalability.

and a 10% improvement in reliability.

Automated routine network diagnostics and reporting tasks using scripts, saving approximately 5 hours of manual work per week.

## Technical Projects

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### **LLM-Powered Internal Chatbot for CSEA Union** | [GitHub Link](#)

*Technologies: Python, PyTorch, RAG, Vector Databases*

Engineered a data pipeline to ingest, chunk, and vectorize the union contract text into a searchable knowledge base, enabling an LLM to provide accurate, context-aware answers to employee queries.

Developed and deployed a retrieval-augmented generation (RAG) system that functions as an internal expert on the union contract, improving members' access to complex information.

### **Time-Series Forecasting for S&P 500 (SPY)** | [GitHub Link](#)

*Technologies: Python, Pandas, Scikit-learn, Streamlit*

Engineered a data pipeline using Python and Pandas to fetch, clean, and merge historical data for multiple indices (SPY, XLK, DJI) from the yfinance API.

Executed feature engineering to create predictive indicators such as Fibonacci retracement levels and daily price ranges to improve model performance.

Developed and deployed a Random Forest Classifier using Streamlit that presents daily predictions and key performance metrics (precision, recall, F1-score).

## Education

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### **Master of Science in Engineering, Computer Science - Data Science Track**

*University of California, Los Angeles (UCLA) | Expected Graduation: 2026*

### **Bachelor of Applied Science in Applied Computing, AI Specialization**

*University of Arizona*

## Certifications

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AWS Certified Data Engineer – Associate

Data Science and Visualization Certificate, University of Arizona