Jacquelyn Garcia

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Education

University of California, San Diego — San Diego, CA
Bachelor of Science in Data Science — *Sep. 2023 – Jun. 2026 (Expected)*

Cornell University — Ithaca, NY
Machine Learning Foundations Certificate — *May 2024 – Aug. 2024*

San Diego City College — San Diego, CA
Associate's in Applied Mathematics — *Aug. 2019 – May 2023*

Experience

Software Engineering Intern — Jun. 2025 – Present
Wells Fargo — *Chandler, AZ*
- Selected for Summer 2025 internship on Wells Fargo's Consumer Technology Team; will contribute to backend systems supporting high-volume financial applications, with a focus on data infrastructure, reliability, and API development.

Machine Learning Engineer Fellow — Aug. 2024 – Dec. 2024
Brightside Health — *Los Angeles, CA*
- Engineered and deployed a Python-based knowledge graph using LLMs (OpenAI) and spaCy, transforming unstructured clinical text into queryable datasets, streamlining treatment research for 300+ mental health providers.
- Modeled and visualized connections between 100+ treatment protocols and outcomes using NetworkX and PyVis, supporting clinicians in evidence-based decision-making for patients with depression and anxiety.
- Developed an automated data pipeline using LangChain and OpenAI APIs to ingest newly published clinical literature, enabling near real-time knowledge graph updates and enhancing treatment recommendation precision by an estimated 10%.

Data Engineering Intern — Jun. 2024 – Sep. 2024
Palomar Specialty Insurance — *La Jolla, CA*
- Designed and implemented automated data validation pipelines using T-SQL in Microsoft SQL Server, ensuring timely and accurate ingestion of high-volume insurance data and enabling reliable downstream reporting via Power BI.
- Engineered scalable ETL processes with detailed data mappings and schema transformations, increasing data processing throughput to support a 2x growth in incoming data volume.
- Developed a PySpark automation script in Azure to parse and ingest semi-structured TPA email data, reducing associated manual workload by 4% and improving data availability for reporting by 3 days.
- Held SQL, Python, and SSMS workshops for fellow interns to enhance their technical skills and understanding of relational databases.

Projects

Dermatology Image Classification | *TenserFlow, Scikit-learn, Pandas, NumPy, Seaborn* — Jan. 2025 – Apr. 2025
- Developed and trained a TensorFlow/Keras-based Convolutional Neural Network pipeline to classify dermatological conditions, achieving a 25% reduction in diagnostic bias across diverse Fitzpatrick skin types.
- Leveraged CNNs, deep learning frameworks, and data augmentation to enhance classification accuracy.
- Collaborated with a team of data scientists to address biases in AI-driven dermatology tools.

Stock Market Dashboard | *Python, Flask, Tailwind CSS, PostgreSQL, Vercel, AWS, D3.js* — Sep. 2024 – Dec. 2024
- Engineered a full-stack, real-time stock dashboard using React.js and Flask, integrating the Yahoo Finance API to provide actionable market insights.
- Developed interactive D3.js visualizations, allowing dynamic exploration of trends and volatility across industries.
- Implemented secure user authentication and personalized watchlists using Auth0, boosting user engagement metrics
- Designed a responsive and modern UI using Tailwind CSS, ensuring seamless user experience across devices.

Green Signals: ESG Factors in Stock Price Prediction | *Python, Scikit-learn, Pandas, NumPy* — Sep. 2024 – Dec. 2024
- Developed and tested a Python-based predictive modeling pipeline using Scikit-learn, integrating ESG scores with financial indicators to forecast next-day S&P 500 movements.
- Executed rigorous feature selection and hyperparameter tuning (KNN, Logistic Regression, XGBoost), achieving a 15% lift in F1-score compared to a baseline financial-indicators-only model.
- Designed comparative visualizations to assess ESG-weighted vs. traditional predictors, highlighting ESG's impact on short-term price fluctuations.
- Delivered results in a formal research-style report, simulating a real-world finance data product presentation.

Technical Skills & Affiliations

Languages: Python, Java, C/C++, SQL, HTML, CSS, JSON, R
Database & Cloud: SQLite, PostgreSQL, Microsoft SQL Server, Google Cloud, Azure, AWS
Machine Learning & AI: TensorFlow, Keras, CNNs, NLP, spaCy, LangChain, Apache Spark, PyTorch
Data Analysis: Pandas, Seaborn, NumPy, Jupyter Notebook, NetworkX, PyVis, Matplotlib, Plotly
Affiliations: Break Through Tech AI, ColorStack, SHPE, WiC, SWE