

Jaden Fix

jadenfix20@gmail.com | +1 (916) 450-1541 | [GitHub.com/jadenfix](https://github.com/jadenfix) | [LinkedIn.com/in/jadenfix/](https://www.linkedin.com/in/jadenfix/)

Education

California Polytechnic University

Master of Science in Quantitative Economics

San Luis Obispo, CA
Aug 2024–Jun 2025
Coursework: Software Development for Economics, AI & Machine Learning, Machine Learning for Prediction & Causal Inference, Dynamic Stochastic Modeling, Advanced Econometrics I–III, Microeconomic Analysis, Evidence-Based Decision Analysis (Bayesian)

DATAEXPERT.IO

Bootcamp: Data Engineering

California State University

Bachelor of Arts in Economics

Achievements: Adam Smith Award, Men's Water Polo, GPA: 3.7

San Luis Obispo, CA

Aug 2024–Jun 2025

Remote

Dec 2024–Jan 2025

Sacramento, CA

Aug 2022–May 2024

Experience

World Bank Group

Data Science Consultant (Co-op)

San Luis Obispo, CA

Jan 2025–Jun 2025

- Engineered ML pipelines using **PyTorch**, **TensorFlow Extended (TFX)**, and **AWS SageMaker** for 500k+ daily data points; reduced latency by 30%.
- Optimized **Prophet/ARIMA** models with Bayesian tuning (**Optuna**), achieving 95% precision.
- Deployed containerized ML microservices via **Docker/Kubernetes** with **RESTful APIs**; improved response times by 40%.
- Developed **Spark Streaming ETL** workflows using **Airflow** for 1TB+ datasets; ensured GDPR compliance.

AT&T

Associate Solutions Manager

Sacramento, CA

May 2023–Aug 2024

- Automated CRM analysis with **SQL/Python**, increasing close rate by 23% and deal size by 17%.
- Designed sales pipelines using **Salesforce** and **Tableau**, boosting lead scoring by 28%.
- Led sales team from 23rd to 1st in Northern California (out of 83).

Palisades Tahoe

Systems Engineer

Lake Tahoe, CA

Oct 2021–Apr 2023

- Built **IoT sensor pipelines** with **Python** and **SQL** for 200+ snow-making machines; reduced latency by 70%.
- Developed **XGBoost** models to optimize resource usage; cut costs by 12%.

Projects

- Statistical Language Modeling with N-Gram Architectures** (Python, NLP, Feb 2025)
 - Engineered unigram, bigram, and trigram models using **NumPy** and **Pandas** with **Add-k** and interpolation smoothing.
 - Reduced test perplexity by 56% via advanced hyperparameter tuning (**scikit-learn** grid search) and optimized handling over 100M+ tokens.
- Algorithmic Trading System for Cryptocurrencies** (Python, Docker, FastAPI, Jan 2025)
 - Developed a high-frequency trading platform using **Docker** and **FastAPI** integrated with the **Solana SDK**, processing 1,000+ transactions per second.
 - Enhanced execution efficiency by 15% through real-time ingestion via **Kafka** and robust risk management protocols.
 - Generated yearly returns exceeding 100% on a small personal portfolio through algorithmic trading strategies.
- Bayesian Markov-Switching Model for Volatility Regime Forecasting** (R, Econometrics, May 2024)
 - Designed a Bayesian Markov-switching model using **R** and **MCMCpack** to detect regimes from 50+ years of data.
 - Achieved over 85% directional accuracy with rigorous cross-validation and Monte Carlo simulations.
 - Awarded the **Adam Smith Award** and chosen to speak at an Economic Society event with an audience of 400+.

Skills

Languages: Python, R, STATA, SQL (MySQL, PostgreSQL, SQL Server, Oracle, BigQuery), NoSQL (MongoDB, DynamoDB, Cassandra), Julia, Scala, Java, C++, Bash, MATLAB, VBA

ML & AI: TensorFlow, PyTorch, Scikit-Learn, XGBoost, LightGBM, MLflow, Hugging Face, OpenCV, NLTK, spaCy

Big Data & Cloud: Apache Spark, Hadoop, Airflow, Databricks, Snowflake, Redshift, GCP, AWS (S3, Lambda, SageMaker), Azure (ML Studio, Synapse)

MLOps & DevOps: Docker, Kubernetes, Terraform, CI/CD (GitHub Actions, Jenkins, GitLab CI), Weights & Biases, DVC, Argo Workflows

APIs & Backend: Flask, FastAPI, Django, REST, GraphQL, OpenAPI, OAuth

Databases & Storage: SQLite, Redis, Firebase, Parquet, Delta Lake

Visualization & BI: Tableau, Power BI, Looker, Matplotlib, Seaborn, Plotly

Dev Tools: Git, GitHub, GitLab, JIRA, VS Code, Postman

Blockchain & Solana: Solana SDK, Anchor, Rust, Solana CLI, Web3.js

Additional Experience: Data Analysis, Predictive Modeling, Statistical Analysis, Data Mining, Feature Engineering, Data Wrangling, A/B Testing, Neural Networks, Deep Learning, Natural Language Processing, Computer Vision, ETL, Agile, Scrum, Continuous Integration, Continuous Delivery, Cloud Computing, Business Intelligence, Data Warehousing, Data Governance