

Julian Wiley

AI/ML Engineer

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EDUCATION

Babson College

Bachelor of Science in Business Administration

Wellesley, MA

Jan 2019 - Dec 2022

RELEVANT EXPERIENCE

Data Engineer | KKR - Boston, MA

Dec 2023 – Current

Supported enterprise data pipelines, developed ISTM monitoring and automated incident resolution framework, built live data catalog for internal data warehouse, engineered solution to enable centralized resource monitoring, and built a SQL lineage parsing system

- Supported reinsurance data pipelines for 40+ data providers, 1600+ data feeds, and \$5billion+ in total cashflows
- Proposed, designed, built, and maintained 4 internal tooling projects that cut data validation and incident resolution time by half
- Built abstract-syntax tree (AST) based SQL parser job for enterprise SQL resources with LLM fallback and LLM-as-a-judge
- Mentored junior members, supported senior team in onboarding AI tooling, and served as support for core infrastructure

Quant and Machine Learning Engineer | AlgoSeek LLC - New York, NY

Feb 2022 – Dec 2023

Wrote example repository of Jupyter notebooks demonstrating data preparation, model building, and strategy backtesting using AlgoSeek proprietary data for:

- Data I/O, Preprocessing Pipeline Creation, MLFlow Model tracking, and IaC-controlled EMR training in AWS
- Added custom, mixed-period indicators, trained 3+ models, backtested 10+ strategies using PySpark and Backtrader
- Demonstrating how to set up AWS for MLOps with financial data and quant finance tools

Quant Research Intern | Stefan Jansen - New York, NY

May 2022 – Jan 2023

Assisted Stefan Jansen in researching and building machine learning models for his book *Machine Learning for Trading*

- Built ML-framework plugins for backtesting libraries for using trading strategy performance as cost/loss
- Built gradient boosted regression models, TSA models, LSTM models for intraday and daily returns/volatility forecasting

Lead Data Engineer | AlgoTech Capital Management - Boston, MA

April 2021 – Dec 2023

Leading the development of a no-code platform for democratizing algorithmic trading and automated portfolio management technologies

- Built MLOps platform for intraday model development in Python using Amazon SageMaker, Glue, Kinesis, and EMR
 - Developed data pipeline to exfiltrate 6+ Tb of data, convert SAS files to parquet, and load into AWS data lake
- Engineered features to augment the data for model training and strategy development in python and spark.
- Wrote python code for stream data processing, broker-order execution, and trading strategy management
- Formulated and wrote code for 15 models, 20+ trading strategies, and 3 different automated portfolio management algorithms for use in our production live/paper trading environment with RL-like reward biasing

SELECT PROJECTS

AlgoVision Platform

Sept 2021 - Current

Developed an end-to-end machine learning solution to predict stock prices for Weissman Foundry inter-college Fellowship Program

- Created AWS infrastructure for strategy development, including a serverless financial data lake and data warehouse using AWS Services with AWS EMR and Apache Hive
- Cleaned and reformatted over 20 TB of equities prices and 4 TB of fundamentals and economic data
- Guided development quantitative research in strategy development, software design methodologies, and ML frameworks
- Built architecture to deploy backtested strategies and pipe real-time data to strategy and model containers

CERTIFICATIONS

AWS Certified Solutions Architect Pro | AWS

Oct 2024

Passed the AWS Solutions Architect Pro Exam

AWS Certified ML Specialty | AWS

Aug 2023

Passed the AWS Certified ML Specialty Exam

Deep Learning Specialization | DeepLearning.ai

Feb 2020

Passed a series of 5 courses on Deep Learning projects and Neural Network architecture