Colin Arndt

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SUMMARY

Software Developer proficient in building and maintaining financial applications, with emphasis on modeling applications, data pipelines, and cloud infrastructure. Experience supporting critical Front Office trading platforms and ESG scoring models in AWS, as well as cloud data migrations. Technical excellence and rigorous attention to detail combine with strong leadership and communication, consistently delivering solutions that improve operational efficiency and team productivity.

Languages: Python, R, Java, Perl, C#, SQL (MS, Oracle, Hive, Postgres, MongoDB), BASH, LaTeX, HTML

Technologies: Linux, AWS, Snowflake, Spark, Airflow, Git, Docker, Jenkins, CloudBees, Visual Studio

EDUCATION

M.S. Data Science and Financial Technology   University of London
GPA: 4.0 equivalent. Coursework in Applied Statistics, Econometrics & Financial Modeling, ML & Big Data

B.A. Psychology   Sonoma State University
GPA: 3.8

PROJECTS

🎧 Econometric Analysis and Forecasting Models

Demonstrated a variety of econometric and time-series modeling techniques, with testing of model effectiveness.

🎧 Back-testing Retirement Portfolio Allocations using 230 Years of US Market Data

Implemented a portfolio simulator calculating inflation-adjusted returns over 35-year investment periods.

Building a Neural Network in TensorFlow to Predict Real Estate Prices

Engineered a neural network layer-by-layer, with a custom grid search algorithm to find optimal hyperparameters.

PROFESSIONAL EXPERIENCE

Cloud Software Developer   Nuveen, a TIAA Company
1/2022 – present   Charlotte, NC - Hybrid

- Engineered ESG scoring models with Python & Pandas in AWS EMR, including unit testing, CICD procedures, production support, and optimizations.
- Implemented data quality process in ingestion pipeline, preventing common errors in model output.
- Supported Nuveen's target date fund trading platform, a Linux EC2 instance running Python, Perl and SAS scripts.
- Worked with API vendor to expose additional data, enabling development of the first report showing debt leverages of portfolio companies, allowing PMs to evaluate holding health on a weekly basis.
- Developed Python data validator for a data warehouse migration from Oracle to Snowflake, capable of efficiently validating millions of rows from daily batch loads. Adopted by multiple teams, saving QA analysts hours per week.
- Migrated legacy Middle Office accounting application to AWS QuickSight, saving $25,000+ in annual license fees.
- Presented above applications to 200 associates in Nuveen Tech and consulted on implementation in other teams.
- Updated REST API-based payment processing pipeline for new vendor requirements.
- Oversaw a mentorship program for new associates and sent regular surveys to assess associate experience.
- Developed a SharePoint site in collaboration with HR to improve associate on-boarding and communication.

IT Consultant   Independent
10/2019 – 12/2021   San Diego, CA

- Automated routine procedures in Python to increase operational efficiency.
- Developed responsive web solutions while implementing SEO best practices to increase visibility.

Manager   Mac Tonic
11/2015 – 10/2019   Eugene, OR

- Trained and oversaw 5-person technician team, automating common diagnostic procedures to save technician time.