Liam Ganose

PRODUCTION ENGINEER · SOFTWARE ENGINEER · DATA SCIENTIST

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About Me

Current production engineer at a tech-focused hedge fund. 3+ years experience specialising in backend development, infrastructure automation and data science / engineering. Massively passionate about all areas of tech and looking to continue my career as a software engineer in the technology industry. Interested in problem-solving challenging tasks, and learning new technologies and tools if the need arises.

Skills

Programming	Python · C++ · Elixir · Bash
Web Dev	Flask · Phoenix · JavaScript · TypeScript · React · Redux · REST
DevOps	AWS · Docker · Kubernetes · Jenkins · Airflow · Azure · Git · Linux
Analytics	SQL · Excel/VBA · R · PySpark · Pandas · SKLearn

Work Experience

The Voleon Group *London, UK*
PRODUCTION ENGINEER - PRODUCTION OPERATIONS TEAM *Jul. 2021 - Now*

- Development, improvement and maintenance of a Python codebase being orchestrated by multiple Airflow DAGs.
- Worked on a live system where it is important to develop efficient, scalable and maintainable code.
- Deployed an automated SLA system which paged on-call staff if there were delays in the live jobs.
- Created tests and documentation for new and existing scripts.
- Involved in first line support – debugging production issues which would be critical to the trading day if not remediated.
- Worked with DevOps tooling; such as building docker containers, improving CI/CD and writing bash scripts.

PwC *London, UK*
SENIOR ASSOCIATE - TECHNOLOGY, DATA & ANALYTICS TEAM *Sep. 2018 - Jul. 2021*

Worked on many projects in different technical areas; such as full-stack web development, machine learning, process automation and big data.

All of this work was in the finance industry. Examples include:

REGULATORY REPORTING TOOL *Tier 1 Investment Bank*

- Designed and built a highly automated cloud-based tool which ran a series of analytical regulatory reporting tests.
- Presented results in an interactive D3.js dashboard.
- This reduced the current auditing process from 3+ people working manually for multiple days down to 30 seconds.

AUDIT AUTOMATION TOOL *Internal*

- Setup CI/CD infrastructure on Azure to automate the testing of machine learning models before publishing to production.
- Built a web application using a Flask back-end and a React front-end.
- The back-end was comprised of REST APIs to handle the recieiving and storing of the test results into a PostgreSQL database.
- Designed and built a React dashboard to show the results of each test, including comparisons to previous runs.
- This massively reduced manual testing time and increased the overall quality of the models.

ANTI-MONEY LAUNDERING INVESTIGATION *International Retail Bank*

- Helped build a screening algorithm using PySpark on a Hadoop ecosystem to identify suspicious payments.
- Trained and deployed a machine learning model to identify True/False positives from the results of the screening algorithm.
- This reduced the manual review time of these results from months to minutes.
- Created ad-hoc scripts to perform repeatable analysis on new datasets.
- Wrote reports and documentation on the code which were presented to legal counsel and then used in legal proceedings.

MACHINE LEARNING FOR DATA QUALITY *Tier 1 Investment Bank*

- Implemented machine learning models to detect data quality issues on a range of investment product data.
- Used PySpark and MLlib when the datasets were too large to be run in memory.
- Identified unknown anomalous transactional data and automatically generated new data quality rules.
- This helped minimise the potential regulatory and financial impact of erroneous data.

Education

University of Lancaster *Lancaster · UK*
B.S. IN COMPUTER SCIENCE AND MATHEMATICS *Sep. 2015 - Jul. 2018*

- Relevant Comp-Sci Modules: Software Development · Databases · Artificial Intelligence · Languages and Compilation · Security and Risk
- Relevant Maths Modules: Linear Algebra · Probability Theory · Stochastic Processes · Bayesian Inference · Financial Mathematics