

Curriculum Vitae - Jack Edison

I thrive in a space where computer science, finance and commercial activities overlap in which I can use my programming, data analysis and problem solving skills to drive for improved business performance.


Driven, a good listener, strong learner. I can be relied upon to deliver high quality results, under pressure.

Masters degree in Computer Science.


Bachelors degree in Economics with Geography.

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NATIONALITY

British
Swiss C-Permit Holder

LANGUAGES

English native speaker
French (DELFI B1)

SKILLS

- Programming capabilities in Python, C++, Java, Haskell, Matlab, Javascript.
- Specific focus on Python, its standard libraries, and data science packages including numpy, pandas, matplotlib, seaborn, scikit-learn, tensorflow.
- Experience deploying Python tools to browser (Flask, React, REST APIs).
- Big data backend platforms & data engineering (Hadoop, MySQL, Apache platforms including Spark and NiFi).
- High Excel (functions, pivot tables) and VBA proficiency.
- Quantitative analysis (commodities, stocks, bonds, and their derivatives, financial analysis (NPV modelling), M&As, portfolio & risk management.
- Data visualisation with Tableau dashboards and Power BI.

EXPERIENCE

2018 Jul-2020 May - Corporate Finance Associate at Emergent Technology, Geneva

- Ran an analysis and reconciliation project on internal volume flows (\$70m+ book). This highlighted \$1.5m in potential gains from inefficiencies in pricing and internal process. VBA and Python.
- Manage a team and ongoing development of a proprietary tool to track these volume flows in real time. Development in Apache NiFi, Python, MySQL backend. Stakeholders include Facebook & Sony.
- FX risk modelling for cross border currency settlement. This included standard risk metrics of VaR & Stress as well as some proprietary models on latency drag and partner fees. Public data pulled from Bloomberg with VBA then merged with proprietary data and analyzed using Python.
- Developed pricing model for our gold supply chain and digital gold offering which was later implemented into our tech stack. Pricing analysis conducted using Python (Jupyter) and later built into an Excel report.
- Corporate finance responsibilities for several M&As and JVs. Ran the financial analysis and due diligence for a PSP acquisition valued at \$20m.
- Seconded into group fundraising team as part of a \$25m Series E. As a mid stage startup pitched to VCs, HNW investors, private Swiss banks, and gold refiners.

2018 Jul-Present - BI Consultant for Earlam & Hursthouse (ad hoc basis)

- Developed BI procedures including reporting, quantitative analysis, data procedures, risk management, and a dashboard for clients.
- Designed and implemented an options modelling tool allowing for oversight of entire portfolio, Greek impacts, IV, and risk factors.

2018 Jan-Jul - Intern Quantitative Risk Analyst at Cargill WTG, Geneva

- Designed, built and implemented reports on VaR, stress, positions, prices and premiums. This included introducing improved data visualisation and reporting systems: Tableau, Power BI, Alteryx and Python scripts.
- Automated multiple processes including report creation, database appends, regular expression text-scraping and system flags.
- Designed and produced custom metrics to assess traders' performance based on temporal position shifts.
- Contributed towards a multi-million function database project (utilised SQLite3 & Hadoop). Enabled more accurate and consistent data sources, as well as improved analysis and visibility.
- ML project to analyse parameter weightings on premiums and prices (regressions, k-fold validation, MCMC).

2016 Jun-Oct - Intern at Cargill Ocean Transportation Middelink, Geneva

2015 Aug-Sep - Contract Admin Cargill Ocean Transportation, Geneva

EDUCATION

2016-2017 - University of Bath - Master of Science in Computer Science with merit

Key modules: Software engineering, Principles of programming 1A (1B audited), Functional programming, Foundations of computation, Databases, (Cryptography audited), Artificial intelligence, and Intelligent control and cognitive systems.

Key software designed:

- Sorting algorithms (tree, merge) & search algorithms (DFS, BFS, A*, Dijkstra's) implementation and complexity analysis (C)
- Playable three handed ConnectN & Connect4 near perfect bot strategy
- Led team of 6 using Agile SWE methodologies, testing, and version control to develop a playable sprite game complete with GUI (Java)
- Parser for a novel programming language (Java)
- An NP-Hard multi constraint timetabling heuristic using ASP (Prolog)
- Cognitive robot sensor & movement software (Python)
- LTL tool using functional programming (Haskell)

Dissertation Project: Constructing a Linear Temporal Logic Software Based Compliance Management Tool for Information Security (Java/Haskell)

2013-2016 - University of Exeter - Bachelor of Science with Honours in Economics with Geography Class II Division I

Key modules: Economic Principles, Statistics and Econometrics, Mathematics for Economists, Game Theory, Public Economics, Futures and Options, Economic Growth, Behaviour, Decisions and Markets, Political Geographies.

2011-2013: International Baccalaureate - Higher level Economics, Physics, Geography. Standard Level Maths, English, French.

OTHER PERSONAL PROJECTS

- Risk parity modelling & leverage risk/reward back testing
- Tradier derivatives data API pull for retail investors
- Blackjack card counting ruleset & strategies MCMC
- Multi constraint sudoku AI MRV backtracking algorithm and visualisation
- SHA-2 and SHA-3 full subset low level hashing implementation
- EMNIST solver using a CNN and classifier. 5-fold validation 98% accuracy (scikit-learn & keras)
- Project Euler optimised solutions C++/Python (mathematical programming challenges)

INTERESTS AND ACTIVITIES

- Technology (programming, blockchain, algorithms & their complexities)
- Quantitative finance: securities, derivatives, ETFs, portfolio management
- Data Science (further online studies undertaken since Masters, 1 on 1 tutoring from a senior data scientist, Kaggle competitions)
- Cryptocurrency tech, trading, & markets (entirely funded my Masters)
- Casino games strategy & competitive strategic video games
- Policy & macroeconomic impacts, current affairs
- Personal finance & investing - focus on reducing fee & tax drag per Swiss regulations while maintaining market returns and reduced beta

REFERENCES

Adam Birkett, Global Physical Trading Lead, Ocean Transportation, Cargill (previously Enterprise Risk Lead for CASC) +41792217650

Barry Trim, Senior Data Scientist (previously WTG now Arup) +447787514926

John Watters, Head of Legal EMEA, Responsible Gold, Emergent Technology, +41786221333