JACK SWITZER'S RESUME

jackswitzer3@gmail.com | LinkedIn

EDUCATION

Bachelor of Applied Science and Engineering | Queen's University Exp. May 2026

- Major: Applied Mathematics and Computer Engineering
- Minor: Business
    - Classes: Economics, Quantitative Trading Strategy

PROFESSIONAL EXPERIENCE

Data Science Intern | Royal Bank of Canada **2024**

- Implemented time series forecasting models using Meta's Prophet and long short-term memory neural networks which reduced error by 50% over existing methods
- Led a unit of 3 in an agile methodology to refactor existing code base, bring in standard coding practices and migrate to GitHub
- Built an excel visualization tool for team members to dynamically interact with forecast, bridging the gap between technological efforts and business needs

Data Analyst Intern| Royal Bank of Canada **2023**

- Automated weekly visualization of key business metrics for executives in python, saving 8 hours weekly
- Conducted time series analysis to forecast call centre volume with SARIMA, with less than 5% error for yearly model
- Designed and taught a course on python with applications to forecasting to a team of twelve

EXTRACIRUCULARS

Teaching Assistant: Linear Algebra I | Queen's University **2025**

- Led 2 weekly tutorials teaching the fundamentals of linear algebra to 60 students at a time in an interactive manner

Campus Ambassador | Royal Bank of Canada **2024-2025**

- Worked with the RBC campus recruitment team to engage the student populus at my university and helped run networking events
- Selection in the highly competitive program due to a very vocal manager and team that spoke on behalf of my merits and the projects that I worked on

Quantitative Project Manager | QUANTT **2024-Present**

- Managed a team of 5 in developing a natural language processing basis for algorithmic trading
- Taught a session to 60 club members on data science and machine learning applied to finance

Quantitative Analyst | QUANTT **2023-2024**

- Participated in a 10-week educational program to gain expertise in quantitative finance fundamentals, covering areas such as capital markets, time series analysis, and computational statistics and probability
- Implemented a Montecarlo simulation and a Heston model to accurately price AMD options to ~5% error on test data

TECHNICAL SKILLS AND RELEVANT COURSEWORK

- Languages: Python, Java, C, Assembly (NIOS II), R
- External Courses: Udemy Machine Learning, Andrej Karpathy's ML series, DataCamp R for Finance I&II
- Libraries: Pandas, NumPy, TensorFlow, SARIMA, SciPy, Prophet,
- School Courses: Computer Architecture, Digital Systems, Algorithms I, Microprocessor Systems, Probability I&II, Linear Algebra I&II, Real Analysis I&II, Complex Analysis