








# JAMES BURY



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## SKILLS









### Languages

-  Python
-  C/C++
-  Go
-   $\LaTeX$
-  Bash
-  JavaScript
-  HTML/CSS

### Libraries & Frameworks

-  Django
-  Flask
-  Pytest
-  Web Assembly
-  React
-  Selenium
-  Sphinx

### Systems & Tools





-  Bloomberg
-  Capital IQ
-  PostgreSQL
-  Linux
-  AWS
-  Git
-  Docker
-  Jira

## READINGS

### In Progress

-  A Man For All Markets
-  Successful Algorithmic Trading

### Finished

-  Hacking: The Art of Exploitation
-  Max Dama on Automated Trading
-  The Black Swan
-  The Man Who Solved The Market

## EXPERIENCE

- May 2020 – Present **Backend Developer (Python, Postgres, Django, Flask)** Bear Health Technologies
  - Took ownership of new features for Django & Flask microservices including AWS file hashing, duplicate file detection, and async email notifications (background tasks) for file uploads.
  - Reduced the developer time allotted for debugging tenfold by writing management commands, rewriting the Admin Panel, and adding Sphinx documentation.
- Sept 2019 – Dec 2019 **Cyber Security Analyst (Python, Django, PowerShell)** Royal Bank of Canada
  - Combed through RBC's massive stack of daily network logs with Python/Django to report suspicious actors.
  - Automated threat hunting investigations for suspicious PowerShell commands and DNS requests from SWIFT servers.
  - Developed an internal library for parsing phishing emails in Python.
- Jan 2019 – Apr 2019 **Red Team Developer (Python, Bash, Flask)** TD Bank
  - Developed malware in C# to hack "secure" systems.
  - Automated event logging for hacking engagements.
  - Took ownership of the team's Threat Matrix app in Python/Flask.

## PROJECTS

- Present **Quant Finance Research System (Python)**
  - Starting from QuantStart.com and the Successful Algorithmic Trading book, built a basic event-driven trading engine.
  - Currently adding historical data sets and learning to use machine learning to generate profitable strategies.
  - Research interests include pairs trading, unusual market maker movements, and mean reversion surrounding earnings surprises.
- Aug 2020 **Wrapper for FinViz Stock Screener (Go)**
  - Published a Go module and CLI that scrapes data from the FinViz Stock Screener.
  - Maximized screen results per request from 20 tickers to 1000.
- Dec 2019 **Monte Carlo Vanilla Options Pricer (C++, Web Assembly, JavaScript, React)**
  - Learned to develop object-oriented option pricing models.
  - Coded the Monte Carlo simulations in C++, compiling to Web Assembly for the Cloudflare Workers.

## EDUCATION

- 2017 – 2022 **Computing & Financial Management** University of Waterloo
  - Object-Oriented Programming
  - Functional Programming
  - Data Structures
  - Corporate Finance
  - Financial Accounting
  - Fixed-Income Securities