Full-Stack Developer
Data Analyst
Hacker

Matthew C. Bowyer

bowsoftware.com

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Education

Now **Rutgers University GPA: 3.0** September 2014 – Now **New Brunswick, NJ**

- School of Arts and Sciences with Major in Computer Science, Minor in Mathematics-Statistics and Economics

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Internships

Now **Fidelity** June 2016 – Now **Boston, MA**

TRADING PLATFORM ENGINEER

- Worked with the Trading Desk at the headquarters of Fidelity to build an application that automated the on-boarding process of commissioning and decommissioning new Traders and Brokers
- Saved Traders approximately 45 minutes for each process which is approximately a 90% reduction in time.
- Functioned as a team leader and a full stack developer programming in PL/SQL to automated data entry and created a user interface with Oracle Application Express

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Freelance

2016 **Drone Go Home** May 2016 – August 2016 **New Brunswick, NJ**

- Configured a Raspberry Pi with Kali Linux to function as an anti-drone beacon
- Wrote a python script to execute a denial of service attack to all drones in its radius by sending deauthentication packets
- Connected the beacon to the Internet of Things by allowing remote devices to connect to the beacons network

2015 **Fair Value Partners** November 2015 – February 2016 **New Brunswick, NJ**

- Set up a MySQL database on Amazon Web Services to store tick data for backtesting
- Implemented an event-driven trading engine in python for historic backtesting and eventually live trading

2014 **Drive.AI** December 2014 – Now **New Brunswick, NJ**

- Co-Founded a non profit organization that does open-source research and development for self-driving cars
- Working with the senators and the tech community to get drone legislation passed--NJ Assembly Bill A1326
- Programmed a 3-layer neural network in Python using the BFGS optimization algorithm for the learning process
- Wired the engine, brakes, and main axle to an arduino using servo motors and linear actuators to actuate our LSV

2013 **Black -Scholes Calculator** June 2013 – September 2013 **Wayne, NJ**

- Worked with a former American Stock Exchange Market Maker to create a mobile iOS Financial Application
- The application calculated theoretical Put and Call option prices based on 6 input variables in accordance with the Black-Scholes Model.
- Calculated first and second order pricing sensitivity to the input variables – commonly referred to as “The Greeks”

Technical Skills

Full-Stack Development
- Python
- Django REST API
- Swift iOS
- HTML5/CSS3
- Javascript

Data Analysis
- Scipy, NumPy, Pandas
- Sci-kit Learn
- Neural Networks
- Bayesian Networks
- Support Vector Machines

Cyber Security
- Cross-Site Scripting
- SQL Injections
- x86 Assembly Code
- Kali Linux Aircrack-ng
- C/C++

Github (Code)
https://github.com/MattCBow

Quantopian (Algorithmic Trading)
https://www.quantopian.com/users/5502154fdb7751e40800003a

LinkedIn (Experience)
https://www.linkedin.com/in/matt-bowyer-841877a8