

Full-Stack Developer
Data Analyst
Hacker

Matthew C. Bowyer

bowsoftware.com

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Education

Now **Rutgers University** September 2014 – Now **New Brunswick, NJ**
❖ School of Arts and Sciences with Major in Computer Science, Minor in Mathematics-Statistics and Economics

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

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++
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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>