

EDUCATION

- **Drexel University** Philadelphia, PA
Bachelor of Science in Computer Science; Secondary major in Mathematics September 2015 – June 2019

EXPERIENCE

- **Booksmart** Philadelphia, PA
Backend Developer July 2016 - Present
 - **Webserver Development:** Python backend for a web and mobile application used by tour owners and musicians. Servicing over 100 daily users
 - **Specification Writing:** Designed new feature implementations, considering scalability and maintainability; worked with management and user interface teams
 - **Data Management:** Migrated data safely to new models, preserving data integrity and backwards compatibility when available
- **Thomson Reuters, IP & Science** Philadelphia, PA
Data Analyst March 2016 - September 2016
 - **Big Data:** Created models for portfolio hedging, portfolio optimization and price forecasting. Also creating a strategy backtesting engine used for simulating and backtesting strategies.
 - **Data Cleaning:** Python backend for a web application used by hedge fund managers for portfolio management.
 - **Web Scraping:** Python backend for a web application used by hedge fund managers for portfolio management.
- **Chess.com** Remote
Contract Developer March 2016 - May 2016
 - **Full Stack Feature Development:** Created models for portfolio hedging, portfolio optimization and price forecasting. Also creating a strategy backtesting engine used for simulating and backtesting strategies.
 - **Testing:** Python backend for a web application used by hedge fund managers for portfolio management.
- **Drexel Hyperloop** Philadelphia, PA
Control Systems Software Engineer July 2016 - October 2016
 - **Sensor Data Logging:** Created models for portfolio hedging, portfolio optimization and price forecasting. Also creating a strategy backtesting engine used for simulating and backtesting strategies.
 - **Requirements Coordination:** Python backend for a web application used by hedge fund managers for portfolio management.
- **Armada International Advisors** Philadelphia, PA
Full Stack Developer October 2014 - October 2015
 - **IoT Project Development:** Research on machine learning for portfolio hedging and replication algorithms. Modeling low-risk & continuous-return strategies. Developed the python library QSTK.
 - **Web and Mobile App Development:** Research on machine learning for portfolio hedging and replication algorithms. Modeling low-risk & continuous-return strategies. Developed the python library QSTK.
 - **Web Scraping for Sales Leads:** Research on machine learning for portfolio hedging and replication algorithms. Modeling low-risk & continuous-return strategies. Developed the python library QSTK.

PROJECTS

- **One-way Anonymous Messaging App:** Open source python library for financial data analysis and for finance.
- **Custom Garbage Collector:** Data Visualization of Git Log data using D3 to analyze project trends over time.
- **Command Line Chess Server:** Book that gives step by step instructions on setting up environment on Mac OS.
- **Custom Graphics Engine:** Music and Movie recommender systems using collaborative on public datasets.

PROGRAMMING SKILLS

- **Languages:** Scala, Python, Javascript, C++, SQL, Java **Technologies:** AWS, Play, React, Kafka, GCE

ACTIVITIES

- **Hackathons:** Philly Codefest, Bitcamp, Numenta NuPic, Hackster.IO Hardware Weekend, PSU Hacks
- **Chess:** Drexel Chess Club President, USCF Member