

Owen Q. Brooks

<http://owen-brooks.github.io>

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EDUCATION

- Drexel University** Philadelphia, PA
 - Bachelor of Science in Computer Engineering; GPA: 3.5* *Expected Graduation 2020*

EXPERIENCE

- Bloomberg L.P.** Princeton, NJ
 - Data Engineering Co-op* *May 2019 - September 2019*
 - Portfolio Data Migration:** Improved portfolio data quality by developing a data pipeline that featured enrichment, error detection, and crowd-sourced error remediation. Interfaced with various micro-services and API's to load data into new format.
 - Random Sampling Library:** Standardized calculations of precision and recall in data quality projects by developing a Python package for random sampling. Worked with various data teams to build out new features and assist in implementation.
 - Company Segments Data Quality:** Automated data quality checks on company segment data by designing and building Python application. Interfaced with cloud and NoSQL databases to enrich and validate data. Built out error correction pipeline using micro-services and JIRA project management software.
 - Micro-services:** Built python micro-services to automate various tasks such as email parsing, data routing and validation of business rules.
- Comcast** West Chester, PA
 - Software Engineering Co-op* *May 2018 - September 2018*
 - Workflow Dashboard:** Designed and built full-stack Spring-Boot application allowing users to monitor data-transfer workflows. Leveraged 3rd party Java API to safely interact with automation software. Focused on scalable design to allow easier on-boarding of users.
 - Dev-Ops REST-API:** Simplified access to backend database by creating a REST API using Spring-Boot and JPA. Researched and implemented continuous deployment using Jenkins and Cloud-Foundry. Leveraged Spring Rest Docs to auto-generate scalable API documentation.
 - Metadata Search App:** Increased data accessibility by developing a full-stack metadata-search application. Reformatted Elasticsearch database in order to improve query time and application scalability.
 - Data Ingestion Automation:** Automated data transfer into Hadoop database with shell scripting. Researched and automated the conversion of shell scripts and utilities to Python. Validated ingested data with Hive.
- G3 Technologies** Mt. Airy, MD
 - Electrical Engineering Co-op* *May 2017 - Sept 2017*
 - Hardware Test Application:** Increased radio production by troubleshooting and fixing bugs found in RF test applications. Restructured and simplified application UI.
 - Radio R&D:** Simplified hardware development process by creating C programs to interface with FTDI cables and signal processing scripts. Coordinated with manufacturers to ensure build and functionality of new designs.

PROJECTS

- Project Connect:** Web application that matches students with programming projects. (NodeJS, React, MySQL)
- XAI Senior Project:** Academic paper comparing the effectiveness of eXplainable AI methods on neural nets. Involved detailed project planning and various presentations on team progress. (Python, Tensorflow, Keras)
- UFC Fight Predictor:** Various models to predict the outcome of UFC fights. Features cost-sensitive learning techniques to account for betting odds. (Python, Pandas, Tensorflow)
- Craigslist-Car-Finder:** Full-stack application built to search car postings scraped from Craigslist. (Python, Flask)
- Owen-brooks.github.io:** Personal website and blog with articles on work experience and programming. (Jekyll)

SELECT SKILLS

- Languages:** (proficient): Python, Java, SQL, Bash, MATLAB, HTML (familiar): C, JavaScript, R, C++, VHDL
- Frameworks and Tools:** Git, Jenkins, JIRA, Pandas, Spring-Boot, NodeJS, Flask, Arduino, Hive, Oracle, NoSQL AWS, MySQL

EXTRACURRICULAR ACTIVITIES

- Drexel Men's Wrestling:** Team member and starter on nationally ranked Division I wrestling team. (2016 - Present)