

# Owen Q. Brooks

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

oqbrooks@gmail.com

240-277-5947

## EDUCATION

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- **University of Illinois at Urbana-Champaign**  
• *Master of Computer Science in Data Science* ;  
GPA: 3.9 Expected Graduation 2023
- **Drexel University** Philadelphia, PA  
• *Bachelor of Science in Computer Engineering; GPA: 3.5* Sept 2016 - June 2020

## EXPERIENCE

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- **QMA** Newark, NJ  
• *Quantitative Developer* Incoming
- **Bloomberg L.P.** Princeton, NJ  
• *Data Engineer* July 2020 - Present
  - **File Backup Package:** Decreased company budget for cloud storage by building a Python package and CLI to provide a consistent interface between multiple cloud object stores.
  - **Data Quality Micro-services:** Increased data quality standards by developing Python micro-services to run statistical checks and business rule validations on various datasets.
  - **Governance Web Application:** Standardized department governance by developing a Python and React web application. Built various forms and dashboards for governance related requests.
  - **Time Series Comparison Package:** Increased efficiency of time series matching by building a Python package with implementations for various NumPy based comparison techniques.
- **CRED iQ** Radnor, PA  
• *Jr. Software Developer* Dec 2019 - July 2020
  - **Web Scraping:** Automated the collection of commercial real estate data by building Python web crawlers. Wrote tools to parse and normalize data from collected documents. Deployed and scheduled crawlers using AWS.
  - **CMBS Analytics Application:** Contributed to development of full-stack application for analysis of commercial mortgage-backed securities. Created various data visualizations of commercial property data.
  - **Comps Model:** Developed model to determine comparable properties using a weighting of different factors.
- **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.
  - **Random Sampling Library:** Standardized calculations of precision and recall in data quality projects by developing a Python package for random sampling.
- **Comcast** Philadelphia, 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.
  - **Workflow Control 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.
  - **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.

## PROJECTS

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- **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)
- **Project Connect:** Web application that matches students with programming projects. (NodeJS, MySQL)
- **Owen-brooks.github.io:** Personal website and blog with articles on work experience and programming. (Jekyll)

## SELECT SKILLS

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- **Languages:** (proficient): Python, Java, JavaScript, SQL, Bash, MATLAB (familiar): TypeScript, R, C++,
- **Frameworks and Tools:** Bloomberg Terminal, Git, Jenkins, JIRA, Pandas, Spring-Boot, NodeJS, React, Flask, Oracle, AWS, MySQL