

Owen Q. Brooks

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

oqb23@drexel.edu ✉

240-472-8246 ☎

EDUCATION

- **Drexel University** Philadelphia, PA
 - *Bachelor of Science in Computer Engineering; GPA: 3.6* *Expected Graduation 2020*
 - **Relevant Coursework:** Adv. Programming Techniques, Business Statistics, Design with Microcontrollers Discrete Math, Calculus I, II, Multivariate, Linear Algebra, Differential Equations, Physics I, II, Networking

EXPERIENCE

- **Comcast** Philadelphia, PA
 - *Data Engineering Co-op* *May 2018 - Present*
 - **Metadata Search Engine:** Increased data accessibility and understanding by developing a full-stack metadata search-engine using Flask and Elasticsearch. Reformatted Elasticsearch database in order to improve query time and application scalability.
 - **Data Manager API:** Eliminated need for manual maintenance of Oracle database by creating a Java REST API using Spring-Boot and JPA. Implemented continuous deployment using Jenkins. Remained flexible and open to new requested features.
 - **Employee Training:** Gave presentations and demos to fellow Comcast employees on topics including: REST APIs, JPA, application frameworks, Jenkins, continuous deployment.
- **G3 Technologies** Mt. Airy, MD
 - *Software Engineering Co-op* *May 2017 - Sept 2017*
 - **Embedded Development:** Eliminated the need for microcontrollers in product development by creating signal-processing algorithms. Implemented and tested created algorithms using FTDI cables.
 - **Test Software:** Increased radio production by troubleshooting and fixing bugs found in hardware test applications. Coordinated with hardware technicians and lead software engineer to document bugs found in patches.
 - **RF Tuning And Production:** Exceeded monthly quotas for radio component production. Utilized a variety of mechanical and software tools to test and tune complex receivers, tuners, and their various modules
 - **Employee Training:** Decreased amount of time required to train new employees by creating detailed procedural reports.
- **Drexel NanoPhotonics Lab** Philadelphia, PA
 - *Lab Assistant* *Sept 2017 - March 2018*
 - **Stage Automation:** Increase research efficiency by creating MATLAB programs to control and automate the use of optical stages. Eliminated previously needed calibration methods in the production of new imaging filters
 - **Optics Research:** Collaborate with researchers in the creation and testing of optical imaging filters. Utilize Class 3 lasers to ensure functionality of H-PDLC samples. Effectively collect and present research data.

DESIGN PROJECTS

- **Lego NZXT Robot:** Robotics project that uses Lego hardware and search algorithms to compete in object retrieval challenges. Collaborated in a team of four to incorporate color, light, and motion sensors. Received second place in 2016 Drexel Design Lab Challenge.
- **Python Search Auto-Complete:** Program that allows incorporation of auto-completion in search engines. Learns common word problems using Markovs Algorithm.
- **Interview Practice App:** Android App that allows users to practice interview questions and record their answers.

EXTRACURRICULAR ACTIVITIES

- **Drexel Men's Wrestling:** Team member and starter on nationally ranked Division I wrestling team. *(2016 - Present)*
- **Beat The Streets Philadelphia:** Peer mentor, tutor and coach for Philadelphia youth. Striving to teach principles of academic and athletic discipline, through the sport of wrestling. *(2017 - Present)*
- **Student-Athlete Advisory Committee:** Committee member for a student-athlete organization that plans fundraisers and other charity events. *(2017 - Present)*

SELECT SKILLS

- **Languages:** Python, SQL, C, MATLAB, R, Bash, Java, Groovy, C++, VHDL, LaTeX, HTML, CSS
- **Software:** Linux/Unix, Mac OS, Git, Jenkins, Spring-Boot, Flask, Play, Oracle, MySQL, LabView, Autodesk Inventor
- **Test Equipment:** Signal Generator, Network Analyzer, Spectrum Analyzer, Oscilloscope