Owen Q. Brooks

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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 microcrontrollers 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 Algorithim.
- **Interview Practice App**: Android App that allows users to practice interview questions and record their answers.

Extracurricular Activites

- **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 Equitment**: Signal Generator, Network Analyzer, Spectrum Analyzer, Oscilloscope