Owen Q. Brooks

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EDUCATION

- **Drexel University** — Philadelphia, PA
  Bachelor of Science in Computer Engineering; GPA: 3.4 — *Expected Graduation 2020*
  - **Relevant Coursework**: Adv. Programming Techniques, Business Statistics, Design with Microcontrollers, Digital Logic Design, Electric Circuits, Discrete Math, Calculus I, II, Multivariate, Linear Algebra, Differential Equations, Physics I, II, Networking

EXPERIENCE

- **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 - Present*
  - **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.
  - **Organization**: Increase lab efficiency by cataloging test, optomechanical, and laser equipment. Manage the purchase, shipping, and handling of research equipment.

- **Loyola University Physics Lab** — Baltimore, MD
  Lab Assistant — *Aug 2015 - May 2016*
  - **Moon Phase Research**: Organized and digitally presented research on moon phases. Increased data accuracy by removing bad data from sets of high-resolution moon photographs.
  - **Schedule Management**: Decreased time conflicts between researchers and professors by creating a department time schedule, used to reserve lab space.

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.
- **Interview Practice App**: Android App that allows users to practice interview questions and record their answers.
- **Python Blackjack**: Program that implements the game of blackjack in Python. Makes use of object inheritance and simple AI. Features easy to use UI and support for multiple players.

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, C, MATLAB, R, Java, C++, Bash, VHDL, LaTeX, HTML, CSS
- **Software**: Linux/Unix, Mac OS, Git, Multisim, LabVIEW, ModelSim, Autodesk Inventor, Microsoft Office
- **Test Equipment**: Signal Generator, Network Analyzer, Spectrum Analyzer, Oscilloscope