William Laney

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Education

College of William & Mary   **Williamsburg, VA**
B.S. Cum Laude, Physics with Honors; Mathematics minor   *Aug 2014-Jan 2018*

- GPA: 3.6, Dean's List
- Alumni Research Prize in Physics (1 awarded annually)
- President, William & Mary Robotics Club
- Electronics Group Leader, TribeSat satellite development program
- **Relevant Coursework:** Electronics, Statistical Data Analysis, Electricity & Magnetism I/II

Work Experience

Carnegie Robotics   **Pittsburgh, PA**
Test Engineer   *Apr 2018-Present*

- Designed printed circuit board (PCB) level test fixtures, and created supporting PCBs with Altium
- Developed system level testing frameworks and applications in Python
- Automated manufacturing and testing processes to improve efficiency and quality
- Interfaced between Engineering, Production, and Quality departments to resolve manufacturing issues
- Documented ISO compliant manufacturing procedures

Undergraduate Research

Sharkduino   **Williamsburg, VA**
Student Researcher/ William & Mary Research Experience for Undergraduates (REU) *May 2015-Dec 2017*

- Developed and prototyped a low power accelerometer and gyroscope-based sensor system
- Designed PCBs in Eagle, then assembled them using a solder reflow oven
- Conducted initial deployments of the system on live animals in a semi-controlled environment
- Performed data validation and analysis in MATLAB and R
- Lead a team of six students in developing hardware, software, and data analysis
- Reported results in thesis, presentations, and poster sessions; documented progress in a weekly blog

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Internship Experience

BAE Systems, Space Products & Systems   **Manassas, VA**
Virginia Microelectronics Consortium (VMEC) Intern   *May-Aug 2017*

- Conducted a statistical study of PCB cleaning techniques to improve manufacturing process efficiency
- Created database of radiation exposure of microelectronics during X-ray inspection
- Identified and enacted changes to bring digital radiography system into compliance with MIL-STD-883K
- Participated in KT root cause analysis

Acorn Science & Innovation   **McLean, VA**
Junior Analyst   *May-Aug 2015*

- Analyzed long dwell magnetic gradiometer data to discern likely unexploded ordnance (UXO) from clutter
- Used a developmental version of a specialized geographic information system (GIS) with a custom classification toolkit intended for operational use
- Performed workflow analysis, data quality assessment, parameter tuning, and algorithm validation

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Technical Skills

Software: Python, MATLAB, Altium, Eagle, R, BASH, LaTeX, Microsoft Technology Associate Certifications
Hardware: Oscilloscope, Logic Analyzer, Digital Multimeter, Power Supplies, Soldering, Laser Cutting

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Organizations

Eagle Scout, ΠME Mathematics Honors Society, AEΠ fraternity, DJ for campus radio station WCWM