William Laney

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Education

Cornell University **Ithaca, NY**
M.Eng. Electrical and Computer Engineering *Aug 2019-May 2020*

- GPA: 3.9
- Designed and evaluated novel pattern projector systems for stereo image matching
- Selected Coursework: Autonomous Mobile Robotics, Computer Vision, Human-Robot Interaction, RF Systems

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
- President, William & Mary Robotics Club
- Electronics Group Leader, TribeSat satellite development program

Work Experience

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

- Designed and deployed printed circuit board (PCB) and system level test fixtures
- Wrote testing frameworks and applications in Python
- Developed PCBs with Altium to support testing
- Performed electrical and software debugging
- Communicated with customers and product designers to determine testing criteria
- Interfaced between Engineering, Production, and Quality departments to resolve manufacturing issues
- Created ISO compliant work instructions and documentation

Research Experience

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 with Eagle, and assembled them using a solder reflow oven
- Conducted deployments of the system on live animals in a semi-controlled environment
- Performed data validation and analysis in MATLAB and R
- Led a team of six students in developing hardware, software, and data analysis

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
- Identified and enacted changes to bring digital radiography system into compliance with MIL-STD-883K

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

- Analyzed long dwell magnetic gradiometer data to discern likely unexploded ordnance (UXO) from clutter
- Performed workflow analysis, data quality assessment, parameter tuning, and algorithm validation

Technical Skills

Software: Python, Altium, MATLAB, C, Eagle, R, BASH, Linux, ROS, Git, Mercurial, LaTeX
Hardware: IPC J-STD-001 Soldering, Oscilloscope, Logic Analyzer, Function Generator, Digital Multimeter

Activities and Organizations

Hiking, Backpacking, Photography, Rock Climbing, AEΠ fraternity, Eagle Scout