Liam T. Berti

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Objective	Summer employment as an electrical/electronic engineering intern.

Education

University of Pittsburgh, Pittsburgh, PA.	**2015 - Present**

Bachelor of Science in Electrical Engineering
Minor in Computer Science
GPA: 3.40/4.0 Expected Graduation: Spring 2018

Delaware County Community College, Media, PA.	**2013 - 2015**

GPA 3.82/4.00 Graduated: December 2015

Work Experience

INVESTING NOW

- University of Pittsburgh, Swanson School of Engineering 2016 - present
- Taught the fundamentals of programming, and robotics to high acheiving pre-college students, whose groups are historically underrepresented in STEM.
- Gave instruction on how to use the Java language to program LEGO robots, and how to traverse a UNIX filesystem.

Relevant Projects

RoboSim

- University of Pittsburgh Robotics and Automation Society at SteelHacks 2016
- Robotics simulation written in 36 hours with Python 3 and Blender that simulates a robot with sensors and physics and allows the user to transfer code written in the sim to hardware. Hardware runs identical to simulation.
- First place, and best use of hardware award at SteelHacks

IARC 7

- University of Pittsburgh Robotics and Automation Society 2016 - Present
- International Aerial Robotics Competition, Mission 7
- Mission: Construct a flying autonomous robot to herd semi-randomly moving roombas on a gymnasium floor to a specified location without the use of SLAM or GPS techniques.
- Currently in the software implementation stage. Using C++, the Robot Operating System, and Python to establish a functional prototype to be simulated in a software environment.
- Advised team on picking out suitable power MOSFETs to construct a safety kill switch that could be toggled by a radio signal, or through software.
- Designed an analog kill switch that cuts power to quadcopter's motors when toggled by a radio.

Rover Robot

- University of Pittsburgh Robotics and Automation Society 2015 - 2016
- Semi-autonomous rover modeled after hazard containment robots.
- Developed a web streaming server to display live video from the robot's camera, with mobile support.
- Created a circuit to allow the rover's computer to communicate with sensors interfaced with a microcontroller.

Skills

- Prototyping circuits using common CAD tools, signal processing experience, troubleshooting circuit design.
- Data analysis, and software engineering with MATLAB(proficient), Python(skilled), C(proficient),C++(some experience with Boost and STL), Java(proficient), Lisp(skilled). Some Assembly language experience.
- System administration of UNIX, GNU/Linux(proficient), and Windows servers(skilled). Bash/Python scripting(proficient).
- Website development with JavaScript(skilled), HTML(proficient), CSS(skilled).
- LaTeX, Git, project management, presentation writing.
- Intermediate Spanish language.
- Basic-intermediate Japanese language.

Awards

- Eagle Scout, Boy Scouts of America
- Founder's Award, Order of the Arrow, Boy Scouts of America
- First place, and best use of hardware at SteelHacks 2016