

# Thomas Keady

[thomaskeady.github.io](http://thomaskeady.github.io)

516-729-9535  
thomas.keady@jhu.edu

## Education

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### Johns Hopkins University

*Bachelor of Science in Electrical Engineering*  
*Bachelor of Science in Computer Engineering*  
GPA: 3.55/4.0

Baltimore, MD  
Expected May 2018  
Expected May 2018

### South Side High School

*Regents Diploma with Advanced Designation*, GPA: 101.4/100  
*International Baccalaureate Diploma*, 41/45 points  
*International Baccalaureate Extra Certificate*, Physics Higher Level

Rockville Centre, NY  
May 2014  
May 2014  
May 2014

## Technical Skills

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Electrical Engineering: serial protocol, Bluetooth, soldering, sensor calibration, rapid prototyping  
Software Engineering: Java, C++, multithreading, interrupts, C, JNI, Python, Assembly, Perl  
Operating Systems: Mac OS, Windows 7, 8, 10, Linux (including virtual machines)  
Currently learning: CNC, signal processing, power electronics

## Work Experience

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### Applied Physics Laboratory

*Advanced Application Scholars Program Intern*

Laurel, MD  
May. 2016 - Aug. 2016

- Wrote C++ driver class for serial communication with wireless sensing platform
- Created Java Native Interface for driver integration with existing Java projects
- Modified solar-powered battery charger circuit to change output voltage of buck-boost converter from 12V to 25.2V
- Researched specifications of inertial measurement units and electronic speed controllers

### Laboratory for Computational Sensing and Robotics

*Student Researcher*

Baltimore, MD  
Feb. 2016 - present

- Designed electrical systems for 5 degree of freedom Preoperative Positioning System for a new surgical robot
- Constructed power distribution circuits with emergency stop for motors and hydraulics
- Constructed control circuits including position sensing encoders with readout on a touchscreen display
- Designed and coded logic and user interface for simultaneous control of actuators via touchscreen and joystick

### Fusiform Medical Devices

*Design Engineer*

Baltimore, MD  
May 2015 - present

- Designed portable data collection platform to record forces experienced by lower limb orthotic devices
- Constructed platform for use in IRB study and calibrated sensors to output real force values
- Learning to program CNC milling machines for automated manufacturing
- Team selected to receive support from Accelerate Baltimore and the Social Innovation Lab

### Bloomberg School of Public Health

*Information Technology Assistant*

Baltimore, MD  
Mar. 2015 - Feb. 2016

- Resolved technology and hardware issues for medical researchers and administrative staff
- Developed code to maintain and support data collection and database servers
- Used APIs to build survey tools for Android devices