Thomas Keady

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Education

Johns Hopkins University — Baltimore, MD
Bachelor of Science in Electrical Engineering — Expected May 2018
Bachelor of Science in Computer Engineering — Expected May 2018
Major GPA: 3.52/4.0

South Side High School — Rockville Centre, NY
Regents Diploma with Advanced Designation, GPA: 101.4/100 — May 2014
International Baccalaureate Diploma, 41/45 points — May 2014
International Baccalaureate Extra Certificate, Physics Higher Level — May 2014

Technical Skills

Electrical Engineering: EAGLE, circuit analysis, TTL, sensor calibration, soldering, rapid prototyping
Computer Languages: Java, Python, C, C++, Assembly, Perl, Javascript
Operating Systems: Mac OS, Windows 7, 8, 10, Linux (including virtual machines)
APIs: XLSForm, Textit, Android API
Currently learning: power electronics, signal processing, MATLAB

Work Experience

Biomedical Engineering Design Team — Baltimore, MD
Engineer — Oct. 2015 - present
- Evaluated microcontroller options for handheld low-cost tocodynamometer and identified ideal candidate
- Analyzing output of uterine contraction detection algorithm to improve accuracy
- Proposed idea that decreasing sensor resolution could improve time and memory efficiency while increasing accuracy, currently testing this approach

JHU Rotobics Club — Baltimore, MD
Lead Electrical Engineer — Aug. 2015 - present
- Added hardware PWM capabilities to Raspberry Pi for auto-targeting ball launcher project
- Supporting construction of optical shaft encoder for increased aiming accuracy
- Designing autonomous maze-solving micromouse with optimal speed, weight and footprint
- Participating in outreach program introducing disadvantaged Baltimore high schoolers to computer science and robotics with Arduino

Fusiform Medical Devices — Baltimore, MD
Engineer, Researcher — 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 production of modular orthotics
- Team selected to receive support from Accelerate Baltimore and the Social Innovation Lab

Bloomberg School of Public Health — Baltimore, MD
Information Technology Assistant — Mar. 2015 - present
- Use APIs to build survey tools for Android devices
- Develop code to maintain and support data collection and database servers
- Resolve technology and hardware issues for medical researchers and administrative staff

Memorial Sloan-Kettering Cancer Center — New York, NY
Student Intern — June - Sept. 2012 & 2013
- Performed graduate-level bioinformatics research full time over two summers
- Developed and applied computer scripts to apply statistical data analyses, searching for associations between genetic variations and cancer
- First exposure to computer science, learned scripting and general computer science techniques
- Recognized as Siemens National Semifinalist in 2012 for research