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Peter Klinkmueller

Education

Johns Hopkins University *Baltimore, Maryland* August 2014 – December 2018

Pursuing a Bachelor's *of Science in Electrical Engineering, minor in Computer Science* – **graduating May 2018**
And a Master's *of Science in Electrical Engineering, concentration in signal and image processing* – **graduating December 2018**

- Research: F.M. Kirby Center for Functional Brain Imaging with Dr. Jun Hua, physiological changes in brain due to Huntington's
- Involvement: JHU Dragon Boat Club (Treasurer, Founder), JHU Gospel Choir (Treasurer) HopHacks (Organizer), Introduction to Microprocessor Lab I / Adv. Microprocessor Lab (TA), Member of International Society for Magnetic Resonance in Medicine
- Awards: Dean's List (Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016, Spring 2017, Fall 2017)
- GPA: 3.79/4.0 (overall)

Work Experience

Vasoptic Medical (Systems Engineering Intern) *Baltimore, Maryland* January 2018 – *present*

- Development of algorithms for processing and analysis of laser speckle contrast imaging data
- Integration of capabilities based on user requirements into software utility to image processing and analysis

Kirby Center for Functional Brain Imaging (Research Assistant) *Johns Hopkins Medical Institute* February 2016 – *present*

- Writing of Matlab scripts for pre- and post- processing and analysis of high resolution fMRI scans
- Use analysis in order to discern correlations between localized brain activation and Huntington's disease progression in patients

Johns Hopkins Dept. of ECE (Microprocessor Lab TA) *Johns Hopkins University* August 2016 – *present*

- Guide students in completion of projects on simulation board
- Aide in conceptual understanding of concepts of Assembly language principles of design and functionality
- Instruct embedded use of internal and external peripherals in projects built around microprocessors

Magic Leap (Embedded Software Intern) *Fort Lauderdale, Florida* May 2017 – August 2017

- Architected low-power, sleep, and graceful shutdown modes for embedded device utilizing peripheral interaction filtering, inter-processor communication protocols, and OS task management
- Designed and implemented API layer for coordinated power state changes for peripheral device drivers and hardware components
- Assisted in project tasks on an ad hoc basis as part of a rapid development environment

Textron Systems (Electrical Engineering Intern) *Baltimore, Maryland* May 2016 – August 2016

- Debugging and collaborating on design of physical RF systems for unmanned vehicle
- Created software processing tools for EMI and RF spectral analysis
- Constructed network simulation board for ground control stations in Python and embedded C++

InterSystems (Software Engineering Intern) *Cambridge, Massachusetts* May 2015 – April 2016

- Re-designed and developed multi-page application for internal and external video education portals on software products using Javascript and Cache_ ObjectScript
- Met evolving design criteria and deadlines, while integrating new APIs and features into site framework

Coursework

EN.601.461 Computer Vision, EN.520.648 Compressed Sensing and Sparse Recovery, EN.601.475 Machine Learning, EN.520.414 Image Processing and Analysis I, EN.520.415 Image Processing and Analysis II, EN.520.433 Medical Image Analysis, EN.520.432 Medical Imaging Systems, EN.601.455 Computer Integrated Surgery I, EN.600.465 Natural Language Processing, EN.520.445 Audio Signal Processing, EN.600.226 Data Structures, EN.520.424 FPGA Synthesis Lab, EN.520.450 Advanced Microprocessor Lab

Skills

Languages: Python, Embedded C/C++, Assembly, Matlab, Java, HTML/CSS

Tools/Platforms: Vim, Git, Linux, embedded peripherals, FreeRTOS, embedded system communications/state management, RF systems