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| JOHN McCORMACK Electrical and Computer Engineer | | Home: Everett, MA  Current: Lakeland, FL  (617) 257 55 86  me@jdmccormack.com |
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| Research Interests: Cognitive Radio Networks, Internet of Things, Swarm Robotics, Machine Learning, and Human Machine Interaction | | |
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| Social github.com/jmccormack200  jdmccormack.com  linkedin.com/in/jdmccormack Languages C  C#  Python  Javascript  Assembly  Verilog  Java  HTML5 and CSS  Erlang/Elixir  Latex  Cobol Software Linux  Git  Unity3D  GNU Radio  OpenWRT  Node.JS  Vagrant  Virtual Box  Flask  PostgreSQL  MongoDB  Materialize  Matlab  Multisim  EAGLE CAD | EducationFlorida Polytechnic University Lakeland, FL ▪ Anticipated Graduation May, 2016  Masters of Engineering  4.0 GPA ▪ Inaugural Class University of California, Irvine (Extension) Irvine, CA ▪ 2013-2014  Certificate in Embedded Systems Engineering  3.7 GPA UMASS Lowell Lowell, MA ▪ 2008-2012  B.S. Electrical Engineering  Minor in Sound Recording Technology  Graduated with Honors  Magna Cum Laude Scholarships: 2014-2016 The Inaugural Scholarship  2014-2016 The Presidential Scholarship  2008-2012 The John and Abigail Adams Scholarship  2008-2012 The University Scholarship 2008-2012 The Engineering Dean’s Scholarship 2008-2010 The FBI Alumni Scholarship Honors and Awards: 2015 Best Hardware Hack – HackFSU  2015 Winner Slingshot Polk Entrepreneurship Contest 2012 Order of the Engineer 2011 Tau Beta Pi  2011 Etta Kappa Nu  2011 Omicron Delta Kappa  2009 Alpha Lambda Delta 2008-2012 The Commonwealth Honors Program | |
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| Hardware Software Defined Radio  Atmel, TI, ARM µControllers  Xilinx FPGAs  Surface Mount Soldering  Oscilloscopes  Spectrum Analyzers  Logic Analyzers  I2C, SPI, UART  ADC/DAC  3D Printing  Raspberry Pi  Arduino  GoPiGo  Ar.Drones  BoeBot  Myo Armband  Leap Motion Plus  Oculus Rift Volunteer 2015 VTC Lab Engineer 2015 IEEE-GEM Paper Reviewer  2015 FLPoly Protothon Organizer 2015 IBM Bluemix Hackathon 2014-2015 University Outreach 2014-2015 Diversity Club  2014-2015 Artbotics Mentor  2014 GIS Day Organizer  2010 Triton H.S. Percussion 2009 Triton H.S. Marching Band Travel People’s Republic of China  Republic of Ireland  United Kingdom  Canada | Publications McCormack, J. ; Prine, J. ; Trowbridge, B. ; Rodriguez, A. ; and Integlia, R. ; 2D LIDAR as a Distributed Interaction Tool for Virtual and Augmented Reality Video Games IEEE-Gem Conference, October 2015.   Trowbridge, B. ; Prine, J. ; Rodriguez, A. ; McCormack, J. ; and Integlia, R. ; Game Motivating Exercise IEEE-Gem Conference, October 2015. Work ExperienceResearch Assistant **Florida Polytechnic University ▪ 2014 to 2016**  My research centers around visualizing and controlling a cognitive radio based wireless sensor network in Unity3D. I am working as part of a small team on all aspects of the project. My current focus is on using GNU Radio and USRP Software Defined Radios to establish the network. Once this is completed, I will pivot and work on controlling and visualizing the radios in Unity3D.   I have also developed an open source driver in python to communicate with the Robopeak LIDAR and worked with the Unity3D game engine to visualize the LIDAR point cloud. As Florida Polytechnic is a small school, I also helped in establishing the Vistualization and Technology Collaboration (VTC) Lab, Robotics Lab, and Electronics shop. I helped generate proposals and purchase equipment in order to give other students the necessary tools and equipment they need to continue research and coursework. I also contributed to a proposal development for a Protothon lab event, funded 2015. Teaching Assistant **Florida Polytechnic University ▪ 2014 to 2016**  I assisted the instructor in the preparation of quizzes, exams, lectures, and homework assignments. I helped coordinate and acted as a mentor at multiple hardware based hackathon type events dubbed "protothons". I have led numerous recitations. I had the opportunity to help with Circuits I, Circuits I Lab, Intro to Engineering, Intro to Engineering Design, and Intro to Programming. | |

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| References Dr. Ryan Integlia  Assistant Professor Florida Polytechnic University Research Advisor [rinteglia@flpoly.org](mailto:rinteglia@flpoly.org)  Dr. Anas Salah Eddin  Assistant Professor Florida Polytechnic University [aeddin@flpoly.org](mailto:aeddin@flpoly.org)  Thomas Hull CIO Florida Polytechnic University [thull@flpoly.org](mailto:thull@flpoly.org)  Sam Herec Technical Project Manager Tivoli Audio [sherec@tivoliaudio.com](mailto:sherec@tivoliaudio.com) | Engineer **Tivoli Audio, LLC ▪ 2012 – 2014**  Tivoli Audio is a consumer electronics company located in Boston, MA. It is a small company with a start-up style culture. I participated in the development of over 10 new products from ideation to final assembly. I generated both analog and digital designs for the products. I prototyped many of the products and I created BOM's and ECR reports to assist in the transition from prototypes to production ready products.  While working for Tivoli Audio, I spent about 15% of my time in China helping to address manufacturing issues. Though my background at the time was mostly analog, I became more interested in microcontrollers and the "Internet of Things". I left the company to attend graduate school. Intern **The MITRE Corporation ▪ 2011 – 2012**  As an intern for the Theater Deployable Communications branch of MITRE my research focused on how software based VoIP phones could be integrated into the current Air Force infrastructure. My work allowed me to utilize Wireshark, Backtrack 5 (now Kali), Cisco switches, and other network testing equipment. My work culminated in the publication of a white paper and a presentation at a MITRE technical exchange meeting with various members of the United States Armed Forces. | |

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