JOHN MCCORMACK

Electrical and Computer Engineer

Home: Everett, MA
Current: Lakeland, FL
(617) 257 55 86
me@jdmccormack.com

RESEARCH INTERESTS: COGNITIVE RADIO NETWORKS, INTERNET OF THINGS, SWARM ROBOTICS, MACHINE LEARNING, AND HUMAN MACHINE INTERACTION

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

EDUCATION

Florida 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

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 EXPERIENCE

Research 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.

REFERENCES

Dr. Ryan Integlia
Assistant Professor
Florida Polytechnic University
Research Advisor
rinteglia@flpoly.org

Dr. Anas Salah Eddin
Assistant Professor
Florida Polytechnic University
aeddin@flpoly.org

Thomas Hull
CIO
Florida Polytechnic University
thull@flpoly.org

Sam Herec
Technical Project Manager
Tivoli Audio
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.