

Coyt W Barringer

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Employment

- **MITRE Corporation** **Tampa**
Intern *July 2011–Present*
Working in communication systems with current Top Secret clearance. Work involves software defined radio, rapid prototyping of hardware and software, and development of hardware and RF based exploits. Previous projects provided experience with embedded Linux, GNU Radio, 3D printing and CAD design, PCB design, construction of rugged portable radio systems, antenna prototyping, and network penetration testing.

Contract Work.....

- **Moore Interconnex** **Tampa**
Development of Custom Paging System *January 2016–Present*
Successfully developed low cost alternative to commercial paging systems for deployment in new Circle K stores around Central Florida. Approximately 6 systems are active to date. Solution required system design, custom PCB development, analog circuit design (Audio routing), wireless links, and embedded programming with Atmel microcontrollers.
- **Shielded Security LLC** **Tampa**
Development of Triggering System for GPS Trackers *Summer 2012*
Tasked with automating button presses on a commercial GPS tracking unit. Solution involved reverse engineering and subsequent circuit board development with PIC microcontrollers and C programming.

Entrepreneurship

- **E5 Engineering** **Tampa**
Cofounder and Head of Research and Development *June 2014–June 2015*
Worked with a team developing several hardware products including a portable power system, a ruggedized USB battery pack, and a large ruggedized Bluetooth speaker system.
- **Lizard Power Systems** **Tampa**
Founder *September 2014–Present*
Started Lizard Power Systems to continue portable power system development. Utilized lithium battery technology, advanced power electronics, and product design principles to bring a successful and competitive product to market. Several units sold to local power company for use during emergency response scenarios.
- **Povon** **Tampa**
Lead Hardware Engineer *July 2015–August 2016*
A small power monitoring startup with emphasis on the internet of things. Developed all hardware for two different smart meter systems and aided in embedded programming. Successfully worked with foreign manufacturers and suppliers through multiple product iterations to create final system ready for deployment.

Education

Academic Qualifications.....

- **University of South Florida** **Tampa**
Electrical Engineering Undergraduate, 2.9 GPA, Expected Graduation Dec. 2017 *2012–Present*

Notable Projects.....

- **Capstone Senior Design Project** **Tampa**
Autonomous Vent Intelligence System with Temperature Auditing *August 2016–May 2017*
Lead hardware designer on team of three student engineers who developed AVISTA - a smart air vent system which adjusts airflow to rooms dynamically. AVISTA was awarded first place for Senior Design projects.
- **Volunteer Summer Research** **Tampa**
Switching Circuit *Summer 2009*
Volunteered in USF professor Dr. Shekhar Bhansalis lab over the summer of 2009 designing a switching circuit used to interface an Impedance Analyzer with an experimental cancer cell detection chip.

Involvement.....

- **X-Labs Engineering Club** **Tampa**
President *August 2012–August 2016*
X-labs is a student run organization attempting to excite non-engineers to join STEM fields as well as give current engineers hands on experience. Participated as youngest group member, elected president in 2012 as a freshman, and remained president for four years (currently Vice President). Assisted and led dozens of club projects including launching high altitude weather balloons, constructing various electrical equipment including a demonstration Nuclear Fusion Reactor, multiple Dual Resonant Solid State Tesla Coils, Coil Gun, Electrostatic Lifter, and various high voltage power supplies. Personally responsible for redesign of X-Labs website as well as best presentation award during the USF 2014 Engineering EXPO. Total participation spanning close to nine years.

Technical and Personal skills

- **Programming Languages:** Basic ability with C, C++,C#, Python, MATLAB, LaTeX
- **Software Skills:** EAGLE PCB, SPICE, MATLAB, SolidWorks, ADS, PSCAD, GNU Radio, CodeWarrior, MS Office, Linux
- **Hardware Skills:** Oscilloscope, Spectrum Analyzer, VNA (Keysight Certified), Fantastic Soldering Ability
- **General Business Skills:** Excellent presentation skills and works well in a team

Interests and extra-curricular activity

- Extra Class Amateur Radio License with call sign KJ4AWM.
- See YouTube channel "CoytHV" for examples of past projects.
- Avid runner, hiker, and rock climber. Cryptocurrency Aficionado.

References

- References available on request