

## EDUCATION

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UNIVERSITY OF CENTRAL FLORIDA  
Cumulative GPA: 3.895

BSEE, ELECTRICAL ENGINEERING  
Graduating December 2015

## PROFESSIONAL EXPERIENCE

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UNIVERSITY OF CENTRAL FLORIDA UNDERGRADUATE RESEARCHER, ORLANDO FL

DECEMBER 2014 - APRIL 2015

- Worked on **RAVEN II** medical robot running **ROS C++** robotics framework
- Did **signal processing** in **Python** in EEG data
- Studied **feature extraction** and **SSVEP frequency detection**
- Used **emokit Python** library to extract signals from Emotiv EEG headset

GOOGLE SOFTWARE ENGINEER INTERN, CHAPEL HILL NC

MAY 2014 - AUGUST 2014

- Worked on benchmarking framework for **Skia** rendering engine team
- Contributed code in **C++**, **Python**, and **Go** for both internal and open source projects

## PERSONAL EXPERIENCE/SKILLS

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- **UCF Lunar Knights** project, electrical/communications teams
  - Helped with **wireless communication** with **Beaglebone Black**
  - **UART** communication with **Arduino** to send **PWM** to motor controllers
  - Helped in robot assembly, troubleshooting and debugging
- **IEEE-UCF Hardware Team** for SouthEastCon, motors team
  - Involved in the design and construction of motors system for competition robot
  - One of the lead programmers programming for the **Arduino** powered robot
- Working on senior design project
  - **Hardware system design** for all components
  - Research into **signal processing** for **feature extraction** with respect to applications in **brain-computer interfaces**
  - Some experience with reverse engineering wheelchair **communication protocols**
- **Robotics Club, UCF**
  - Worked on Cypress **PSoC chips** for high performance UART
- Studying **asynchronous circuit design**, working on 8-bit asynchronous CPU for fun
- Hobbyist experience with electronics design and reverse engineering, guitar electronics repair
- Fluent in **C/C++**, **Python**, **Go**, **Verilog**
- Working knowledge of **x86/x64/MIPS/MSP430** assembly, **Java**, **LaTeX**, **bash**
- GitHub user: <https://github.com/cactorium>