

Zachary Steven Hartig

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Education

University of Maryland, A. James Clark School of Engineering

B.S. Computer Engineering

- 3.593 GPA

Virtus, Male Engineering Living and Learning Community

College Park, MD

Expected May 2017

May 2015

Experience

IRC Chat Moderator Script

September 2015

- Created a Python script that processes input from an IRC client
- Added extra commands and user states that are maintained by the script between executions
- Integrated multithreading to allow for command execution and chat processing to occur concurrently

Bag Creation and Testing Project, Introduction into Computer Systems

May 2015

- Designed a bag that uses dynamic memory allocation to store strings using C
- Created functions that act on bags, such as union and sub bag
- Wrote tests to ensure other bag implementations performed as expected
- Created a makefile that compiles test cases into executable files

FPGA Memory Controller Project, Digital Circuits and Systems Lab

November 2014

- Wrote a Verilog program to act as a 2048 bit ONFI flash memory controller
- Simulated controller and memory device using a FPGA to ensure correct performance
- Sent, received, and stored data across two FPGAs using I2C communication

Autonomous Hovercraft Project, Introduction to Engineering

September - December 2013

- Sensors and Navigation Subteam Leader
- Created a hovercraft able to travel to the payload delivery pedestal and deliver a payload
- Collaborated with a ten person group to create and test a hovercraft that can autonomously navigate a course in 3 months for \$350
- Led a team to research sensors and develop a control algorithm in Arduino C for a hovercraft
- Wrote and presented preliminary and final design reports

Honors

- The National Society of Collegiate Scholars
- Primannum Honor Society
- Dean's List and Academic Honors
- National Honor Society
- Spanish National Honor Society

March 2014 - present

January 2014 - present

Fall 2013 - present

April 2012

January 2012

Skills

- Operating Systems: Macintosh, Windows
- Computer Languages: C, C++, HTML, Java, Javascript, Matlab, Python, Ruby, Verilog, Y86
- Software: PSpice, Solidworks, Microsoft Word, Powerpoint, Excel