

Tony Abboud

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Education

University of Maryland

B.S. ELECTRICAL ENGINEERING, GPA: 3.8

College Park, MD

August 2011 - May 2014

Skills

languages C, Python, Bash, Swift, ARM Assembly, (Have used: C++, Perl, PHP)

tools Git, MySQL, Vagrant, Vim, Xilinx

platforms Linux, UNIX, OSX, Windows

Experience

Palantir Technologies

FORWARD DEPLOYED SOFTWARE ENGINEER

New York, NY

August 2016 - Present

Lockheed Martin Advanced Technology Labs

RESEARCH ENGINEER

Cherry Hill, NJ

April 2015 - Present

- Implemented many new features for our network emulation testbed (ACORN), developed under DARPA's NCR:
 - Improved the performance and added features to our custom virtualization library for VMware ESXi
 - Added the ability to network between physical nodes and any virtual nodes running inside ESXi
 - Added a new blackbox node type which can be any piece of hardware with power and network capabilities (ex. Raspberry Pi)
- Designed and implemented a distributed testing framework to support the development of our network emulation testbed
- Re-architected an internal cloud and range management system to run our Malware Lineage Extraction Toolkit (MalLET) as a service and improve the performance

University of Maryland

UNDERGRADUATE TEACHING FELLOW

College Park, MD

August 2012 - May 2014

- Taught C programming topics, UNIX utilities, and digital logic design
- Designed programming assignments for the semester
- Automated the grading process for all projects and assignments to improve efficiency and validation
- Led recitation sections to help students debug code and answer questions

Projects

MPkernel

JUPYTER KERNEL FOR MICROPYTHON

September 2015 - Present

- Python3 package to run a micropython repl inside of a Jupyter/Ipython notebook
- Provides interfacing with physical hardware over serial and socket connections
- Working towards a fully interactive environment to interface with the physical hardware (Ex. real-time data analysis of ADC values)

DropboxIgnore

.GITIGNORE FOR DROPBOX

January 2016 - Present

- Leverages existing work to bring the gitignore functionality to the Dropbox client on OSX, Linux, and Windows
- Reverse engineering the latest Dropbox client to find the best way to hook into and ignore certain files
- Prototyped using python and makes use of the trie data-structure to increase performance

OBDII Telemetry System

SENIOR DESIGN PROJECT

January 2014 - May 2014

- Provides real-time logging of OBDII data including engine temp, mpg and engine RPMs on a custom dashboard LCD display
- Utilized an RTOS to handle threading and graphics processing which enhanced the performance and user experience
- Designed a custom PCB and enclosure to connect and house the processor, LCD, and other components
- Hacked an existing OBDII-connector to add a bluetooth transceiver which provides wireless data transfers to the system