

Dillon Lareau

Github:
<http://github.com/dlareau>

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Education Carnegie Mellon University, Pittsburgh PA - Graduate Student - QPA 3.51
• **M.S.** in Electrical and Computer Engineering May 2017
- Specializing in Embedded Systems, Computer Security, and Digital Design
• **B.S.** in Electrical and Computer Engineering, Minor in Computer Science Minor May 2016
- Graduated with University Honors

Work Experience **Intel Corporation** - SSD System Test Engineer Summer 2015
• Responsible for proving viability of Intel's new high end SSD product line
• Wrote a series of tests in C++ to find bugs in drive functionality on the system level
• Identified and assisted in the repair of multiple major software and hardware issues
• Solutions I developed are part of multiple product lines launched in 2016
iTownStore - Software Engineer Summer '13 '14 '16
• Responsible for creating the customer management system currently used by the company
• Wrote a three thousand line system from scratch using PHP, mSQL, and Javascript
• Responsible for adding new website functionality and integrating with point of sale system
• Created and maintained computer network and system infrastructure essential to the company.
Carnegie Mellon University - Teaching Assistant (7 semesters) Spring 2013 - Present
• Asked by professor to TA 18-240 - Structure & Design of Digital Systems - Head TA
• Led team of TAs to organize and run lab projects for the course
• Worked extensively with Verilog to simulate hardware designs and program FPGAs
• Wrote improved automatic grading script for digital homework

Languages/Skills **Proficient Languages:** C, Python, x86/(64) Assembly, PHP, System Verilog
Familiar Languages: C++, Perl, Basic, Java, Javascript
Tools: AutoCAD, Google Sketchup, Autodesk Eagle, Synopsis VCS, and Quartus II
Knowledge Areas: Operating systems, Distributed systems, Real time embedded systems, Logic design and verification,

Relevant Coursework 18-733 - Applied Cryptography 18-549 - Embedded Systems Capstone
18-643 - Advanced Reconfigurable Logic 18-732 - Secure Software Systems
15-210 - Parallel and Sequential Data Structures 18-739 - Special Topics: Advanced Cyber Security

Projects **Custom Operating System-** Co-wrote a unix-like kernel that implements virtual memory management, process scheduling and control, threading, and basic locking and synchronization primitives.
Android w/ Real Time- Worked as part of a team project to add real time scheduling, management, and constraints as well as power monitoring to the Android mobile operating system.
Sribe - Embedded systems capstone project to create a simple, LIDAR based, place anywhere device to detect large scale writing/drawing without the need for additional user held hardware.
Morse Code Decoder - Created an embedded system to decode morse code sequences in real time; written in C and assembly using a 16 bit Motorola CPU.
CAREography - Intel Top Hack first place project - Built and programmed an Intel Edison controlled semi-autonomous miniature car programmed via the web. Control software written in C.
PHCMU Webserver - Wrote a 4k line Django app to run and manage PuzzlehuntCMU activities.

College and Community Activities **Plaid Parliament of Pwning (PPP)** - Student computer hacking team (2 years)
• Solved problems in Computer Security "CTF" competitions in which PPP placed first.
PuzzlehuntCMU - Organization to plan and take part in puzzlehunts on campus. (5 years)
• Staffed and helped create a corporate-sponsored, campus-wide puzzle hunt for 7 semesters.
Keeping Geeks Busy (KGB) - A social org focused on humor, fun, and technology (5 years)
• Head of Construction as well as Head Electrician for KGB's 2013 and 2014 Booth.
• Previously VP for one academic year and Treasurer for two academic years.
First Year Advisory Board - Carnegie Institute of Technology (1 year)
• Part of a board that planned events and engaging activities for the freshmen in CIT.