

David McNeil

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Profile

I am a computer engineering major with a strong background in computer science and software development currently pursuing a master's degree in electrical engineering focusing on computer architecture. I am seeking a full time engineering position starting in the summer of 2016.

Experience

2014 - 2015

Three Months

Indesign - FIRMWARE ENGINEER INTERN - INDIANAPOLIS, INDIANA

Developed an embedded system which interfaced with numerous sensors and actuators.

Technology Used: C, MSP430, Hall Effect Sensors, Current Sensors, RFID, Servo Motors

2014 - 2015

Nine Months

Naval Surface Warfare Center - SENIOR DESIGN PROJECT - CRANE, INDIANA

Developed a system to predict location based on RF spectrum data.

Technology Used: Python, SQLite, GPS, Software Defined Radio

2013 - 2014

Three Months

Garmin - LOW LEVEL SOFTWARE ENGINEER INTERN - OLATHE, KANSAS

Developed software for operating system profiling. Updated, maintained, and debugged extensive C/C++ code base.

Technology Used: C, C++, Lauterbach Debugger

2012 - 2013

Three Months

Cetani - SOFTWARE DEVELOPMENT INTERN - CARMEL, INDIANA

Developed a server for issuing hospital notifications and pushing real-time changes in generic data to front end user interfaces.

Technology Used: Ruby, Rails, C#, Javascript, Node.js, SQLServer, HTML, CSS

2011 - 2012

Three months

Oasis Digital - SOFTWARE DEVELOPMENT INTERN - CHESTERFIELD, MISSOURI

Developed a work management system from the ground up.

Technology Used: Node.js, Javascript, Backbone.js, PostgreSQL, HTML, CSS

Projects

2014 - 2015

Twelve weeks

Machine Learning

Developed a classifier for detecting sunset images, optical character recognition software, resistor classification software, and voice recognition software.

Technology Used: MATLAB, Neural Networks, Support Vector Machines

2013 - 2014

Three weeks

Programming Language Concepts

Studied syntax, semantics and design of programming languages and implemented a scheme interpreter.

Technology Used: Scheme

2013 - 2014

Ten weeks

Data Structures and Algorithm Analysis

Intensive study of space and time trade-offs of using various data structures and algorithms.

Technology Used: Java

2012 - 2013

Four weeks

Computer Architecture

Designed and implemented multicycle processor and corresponding assembly language. Wrote assembler to convert instructions to the appropriate byte code.

Technology Used: Verilog, Spartan-3 board, MIPS assembly, x86 assembly, gem5 simulator

2012 - 2013

Three weeks

Operating Systems

Created bare metal operating system with interactive shell and process scheduling algorithm. OS provided basic file manipulation and script running capabilities.

Technology Used: C, x86 assembly, Bochs Emulator

2012 - 2013

Three weeks

Computer Networks

Developed an HTTP server. Dealt extensively with sockets and network communication state machines.

Technology Used: C, C#, Wireshark

2010 - 2011

One month

AI Challenge

Placed 323 out of nearly 8000 contestants in an international programming contest. Implemented algorithm to control a virtualized colony of ants.

Technology Used: Python

Education

2015 - 2016

In Progress

Rose-Hulman Institute of Technology (4.00 GPA) - TERRE HAUTE, INDIANA

Master of Science in Electrical Engineering with a focus in computer architecture

2013 - 2015

Three Years

Rose-Hulman Institute of Technology (3.64 GPA) - TERRE HAUTE, INDIANA

Bachelor of Science in Computer Engineering, Minor in Computer Science