Matthew Dias

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EDUCATION

UNIVERSITY OF WATERLOO
Honours B.Sc in Electrical Engineering
Computer Engineering Option
Expected April 2019 | Wateroo, ON
Cum. GPA: 3.7

YORK UNIVERSITY
B.Sc in Health Science
June 2014 | Toronto, ON
Dean's List (All Semesters)
Cum. GPA: 3.85

COURSEWORK

Algorithms and Data Structures
Analog Control Systems
Electronic Circuits
Semiconductor Devices

PROGRAMMING SKILLS

Proficient:
• C • C++ • VHDL • Python
• Java • BASH • TCL • MATLAB
Familiar:
• Assembly • PostgreSQL • Swift
• LaTeX

TOOLS

Software Development
• Vim • Visual Studio • Eclipse • Keil
• Android Studio • X-Code • Altera Quartus

Design
• AutoCAD • Diptrace • Altium
• Multisim

Source Control
• Git • SVN

Operating Systems
• Linux • Windows • OS X • Android

Lab Equipment
• Oscilloscopes • Function generators
• Digital multimeters • Vector network analyzers (VNA)

EXPERIENCE

EVERTZ MICROSYSTEMS | Hardware Design Intern
May 2017 - Aug 2017 | Markham, ON

- Developed an application used to store data in CPLD flash memory via JTAG.
- Created a FUSE filesystem interface for the storage application.

EATON | Engineering Intern
Sept 2017 - Dec 2017 | Mississauga, ON

- Created AutoCAD drawings of lighting and sensors for Eaton's addressable lighting system.
- Developed VBA scripts to collect project management metrics from Basecamp.
- Developed a library of commands for AutoCAD using LISP to automate the process of preparing drawing exchange files for database import.
- Managed lighting databases using PostgreSQL queries.

SMITH + ANDERSEN | Junior Electrical Designer
Jan 2016 - May 2016 | Toronto, ON

- Designed electrical systems for large infrastructure projects using AutoCAD.
- Assisted Project Managers in all aspects of electrical design including lighting, power distribution and life-safety systems.
- Calculated electrical loads, cable ampacity, circuit breaker sizes and transformer specifications based on power requirements.

EXTRACURRICULAR

UNIVERSITY OF WATERLOO ROBOTICS TEAM | Circuit Design
Jan 2017 - Present

- Designed the schematics and PCB layout of various boards for the Mars rover.
- LTSpice simulations of circuits.
- Designed a power supply selector system for the battery management board.
- Sourced more cost-effective switch-mode power supplies and other components.
- Soldered and tested components.

PROJECTS

TEAMLINES | Java, Python, PostgreSQL
http://github.com/Beezlie/Teamlines

- Developed an Android app to display up-to-date Twitter timelines of NBA, NFL and MLB teams.
- Used Beautiful Soup and Tweepy Python libraries to scrape sport team rosters and player information from Wikipedia and Twitter.

RETRO GAMES | C
http://github.com/Beezlie/RetroGames

- Designed games similar to Space Invaders and Flappy Bird for the TM4C123G microcontroller.