Michael Middleton

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OBJECTIVES

Seeking graduate study admissions to develop skills and experience for future employment researching and developing technical solutions to modern engineering problems in the domains of embedded system design and software engineering

EDUCATION

B.S. Electrical Engineering (Computer Engineering Emphasis) NorthernArizonaUniversity - Flagstaff, AZ (2009-present)

- Graduation Date: Spring 2014 - **3.34 GPA**
- Minor in Mathematics
- Active Member of Northern Arizona University ACM and IEEE Chapters

SKILLS

- Excellent written and verbal communications skills including experience working with multi-ethnic engineers, technicians, developers, students, professors, and customers from a variety of industry disciplines
- Aptitude for critical analysis, engineering design, interdisciplinary collaboration and team leadership
- Strong foundation in Mathematics including Numerical Analysis, Statistics, and Calculus based Physics
- Programming languages: 68k *Assembly, C/C++, Java, Python, MATLAB, VHDL*
- Software: *SolidWorks, ANSYS Maxwell (CAD based),Visio, Simulink, MATLAB, Visual Studio2012, Code Composer Studio5*

PROJECTS

- Creation of a distributed communication system for the purpose of analyzing solar variability with MSP430 microcontrollers, CC2500 RF-transceivers, and utilization of various communication protocols in C (EE410 Embedded Control)
- Programmatic construction of a μp3 architecture 8-bit microprocessor implemented on an Altera Cyclone II FPGA board in VHDL Hardware Description Language (EE 310 - Fundamentals of Comp. Hardware)
- Implementation of a C library of Matrix functions performing complex mathematical calculations including Fourier Transformation, Gauss-Jordan and Gauss-Seidel row reduction, and various matrix operations on Complex numbers in polar and Cartesian planes. (EE 222 - Intermediate Programming)
- Lab simulation, analysis, and implementation of various closed loop automatic controls on high-output DC motors using Simulink (EE 490 - Electric Drives, EE458 - Automatic Controls)

WORK EXPERIENCE

Northern Arizona University – Flagstaff, AZ

Undergraduate Research Assistant – Wireless Networks Research Laboratory (2013 - present)

- Developed, tested, and debugged embedded systems hardware and software on the Southwest Experimental Garden Array (SEGA) for Integrating Genetics and Climate Change project

Information Technology Services – PC Support (2012 - 2013)

- Faculty end-user support, domain registration and administration, documentation, and CMS content creation

Engineering Teaching Assistant and Lab Aide (Spring 2013)

- Assisted in the instruction of EE310 (Fundamentals of Computer Hardware) course in the EECS department by facilitating lab time, debugging VHDL code, proctoring exams, grading, and after-hours student instruction

W.L. Gore and Associates – Flagstaff, AZ

Software Quality Assurance (Summer 2013)

- Created resources motivating standardization of approaches to computer system validation including validation form templates, a glossary of industry standard terminology, and an architectural map of divisional IT infrastructure

IT Support (Summer 2012)

- End user support, basic network maintenance and administration, hardware deployment, and inventory management
- Network switch hardware upgrade and ergonomic switch-room maintenance

Laser Engineering & Tech Support (Summer 2011)

- Designed, modeled, and modified various laser laboratory hardware in SolidWorks for prototyping of new designs
- Investigated possible surface treatment solutions for various design prototypes

REFERENCES

Available upon Request