Matthew P. Scott

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Education

Purdue University - West Lafayette, IN August 2018
MS in Engineering Technology GPA: 3.98/4.0
Area of Study: Embedded Systems

Purdue University - West Lafayette, IN May 2013
BS in Electrical and Computer Engineering Technology GPA: 3.9/4.0

Skills

Programming Languages: C, MATLAB, ARM assembly, Python, VHDL
Software Applications: MATLAB, Simulink, Multisim, LabVIEW, Visual Studio, Atmel Studio, PSoC Creator, KEIL µVision, GitHub, Eagle, Kicad, PCB Artist, Altium, Microsoft Office Suite
Hardware Proficiency: Multimeters, Oscilloscopes, Power Supplies, Frequency Generators, Soldering equipment
Embedded modules: Cypress PSoC MCU, Atmel 8 bit through 32 bit MCUs, Kinetis MCU, STMicroelectronics MCU, TI C55x DSP, Altera FPGA, Raspberry Pi 3
System Design: Analog/Digital circuitry, Mixed-signal PCBs, Embedded PID controls, DSP applications, RTOS
Operating Systems: Windows, Mac, Linux, Embedded Linux, FreeRTOS, ROS
Languages: English (Fluent), German (Certified B1 proficiency Goethe-Institut), Spanish (In training)

Engineering Experience

Sr Technologist, Electronics – Lawrence Livermore National Lab - Livermore, CA October 2018 – March 2020
- Designed, fabricated and tested a high-voltage, electronic explosives firing system
- Conducted design and safety reviews to ensure strict adherence to Department of Energy standards
- Collaborated heavily with design, drafting, fabrication and safety experts to achieve R&D objectives
- Collaborated with colleagues to build, set up and fire high explosives research shots

Graduate Research - Purdue University - West Lafayette, IN August 2017 - August 2018
- Produced a test platform to facilitate experimentation and diagnostic collection from an energy harvesting imager chip
- Researched PCB design literature to implement best practice PCB layout, routing and stackup techniques
- Resolved critical failures in existing C programming software to bring product to successful working order
- Collaborated with lab faculty to design an optimal system for future usability and utility to the team

R&D Embedded Engineering - Walt Disney Imagineering - Glendale, CA May 2017 - August 2017
- Researched and improved upon an existing embedded design with respect to project goals
- Revised existing PCB design and fabricated and tested the new system
- Developed embedded software on a dual MCU/FPGA hardware platform

Electrical Design Engineer - Caterpillar (EASi Engineering) - Lafayette, IN October 2014 - July 2015
- Designed, fabricated, and programmed data acquisition hardware in a team setting
- Collaborated within a team to manage a 25% growth in data acquisition hardware support needs in 2015
- Developed daily team action plans using an adapted Agile methodology

Projects Engineer Intern - CEcert - Wismar, Germany February 2014 - July 2014
- Designed, fabricated and tested an automated test system for verification of CE product compliance
- Referenced and adhered to CE test requirements during system development
- Collaborated with CEcert employees to define desired system feature set

Engineering Technician Intern - Black & Veatch - Overland Park, KS May 2011 - August 2011

- Reviewed and marked mechanical schematics for drawing production
- Verified and updated equipment lists against schematics
- Coordinated an intern team project analyzing generational differences in the workplace

Global Experience

Study Abroad - Ostfalia University of Applied Sciences - Wolfenbüttel, Germany May 2010
Sustainable Energy Technologies: An International Perspective

Junior Ambassador - Congress-Bundestag Exchange - Germany August 2013 - July 2014

- Certified with B1 intermediate German language proficiency through the Carl Duisberg Centren
- Audited 4 classes at Hochschule Wismar
- Completed a 5 month internship at CEcert and delivered a completed product test setup
- Adapted to and thrived in foreign cultural norms

Teaching Experience

Graduate Teaching Assistant - Purdue University - West Lafayette, IN August 2016 – May 2018

- Taught and managed plastics technology lab to 80-100 undergraduate students every semester and graded lab assignments
- Trained students in lab equipment use and maintained OSHA safety standards in a group setting
- Reviewed and discussed classroom and student concerns with faculty to foster and maintain an optimal learning environment
- Collaboratively expanded course content with written materials and video development

Graduate Teaching Assistant - Purdue University - West Lafayette, IN January 2016 - May 2016

- Acquired and applied pedagogical techniques and strategies to successfully instruct a classroom of 45 college students
- Observed 29, hour long classes to create lesson plan outlines from which to teach the next day
- Met weekly with fellow instructors to discuss improvements on the previous week's lessons and plan for the upcoming week's lessons

Certifications

- IPC J-STD-001 Specialist July 2019 - July 2021
  Requirements for Soldered Electrical and Electronic Assemblies
- IPC WHMA-A-620 Specialist April 2019 - April 2021
  Requirements and Acceptance for Cable and Wire Harness Assemblies
- Altium Designer 19 – Essentials March 2019

Honors and Awards

- Tau Alpha Pi National Honor Society for Engineering Technology
- Certificate of Excellence: Outstanding Senior Design Project
- Purdue Dean's List
- Dan and Martina Lewis Graduate Endowment
- Robert A Hoffer Memorial Scholarship
- Indiana Michigan Power Scholarship
- National Merit Scholarship
- The Public Education Foundation of Valparaiso, Indiana Dollars for Scholars Grant
- Twenty-first Century Scholars Scholarship