Robert Morgan Savage

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PROFESSIONAL SUMMARY

A Georgia Tech Masters' Degree Electrical Engineer experienced in programming, systems and control design, analog/digital IC technology and design, and management of technology. Demonstrated engineering acumen skilled at creating technological strategy, with a strong ability to problem solve, develop new product implementation and project planning, plus determine resources and time lines. Competent professional with in-depth knowledge of electrical engineering, quality assurance, and object-oriented design principles; in addition to multi-level communication skills, able to bridge technical and business boundaries to achieve objectives. Strong commitment to product excellence and self-motivated, goal oriented individual. Able to work and make decisions independently and a team player.

TECHNICAL SKILLS

Hardware: Embedded Microcontrollers, Analog IC Design, Digital Design, Op-Amps, FPGA

Software: OrCad Schematic Capture, SPICE simulation, Altera Quartus II Design Software, LabView, Linux, MathCad, Excel

Programming Languages: C/C++, MATLAB, Python, VHDL, Assembly

Instrumentation: Oscilloscopes, signal generators, logic analyzers

Engineering: Modern Control Theory and System Dynamics Modeling, object-oriented programming, technical writing, debugging, investigating new technologies, hardware prototyping, data collection and analysis, electrical schematics, analytical decision-making, problem-solving

EDUCATION

Georgia Institute of Technology, Atlanta, GA Aug. 2010-Dec. 2011

Master of Science Electrical and Computer Engineering

Relevant Coursework: Microelectronic Fabrication Technologies, Linear Systems and Controls, Analog Integrated Circuit Design, Non-linear Control Systems, Optimal Control and System Optimization, Digital Control, Principles of Management for Engineers, Management of Technology Resources

Georgia Institute of Technology, Atlanta, GA Aug. 2006-Dec. 2010

Bachelor of Science Electrical Engineering

Relevant Coursework: Computer Architecture and Operating Systems, Digital Design Laboratory, Object Oriented Programming for Engineering Applications, Embedded Microcontroller Design, Electromagnetic Applications, Analog Electronics

EXPERIENCE

Soutern Nuclear Operating Company,Waynesboro, GA June. 2013-July. 2014

Electrical Design Engineer

- Prepared detailed design change documents, safety evaluations, engineering analysis, drawings, cost estimates and schedules for plant instrumentation, control, and electrical equipment modifications and retrofits.
- Coordinated designs for construction of new plant components.

Hewlett-Packard, Autonomy, Atlanta, GA Feb. 2012-Feb. 2013

Technical Specialist

- Generated a successful application of customized security and surveillance software with facial recognition, scene analysis, object-detection, and alarm event stream processing using AJAX, Apache Tomcat, JSP, and Java Script.
- Determined prospective customer's goals and map to software capabilities and strengths for text analytics and social media software.

Georgia Tech Research Institute, Atlanta, GA Oct. 2010-Dec. 2011

Graduate Research Assistant

- Authored detailed, technical documentation for the historical development review and forecasting future evolution of Code Division Multiple Access (CDMA) mobile wireless technology.
- Delivered and presented findings of radar counter measure digital radio frequency memory electronic warfare research by country of origin, offering an assessment on the level of technical expertise and advancement of the research.

Georgia Tech Research Institute, Atlanta, GA Oct. 2010-Dec. 2011

Graduate Research Assistant

- Managed electronic hardware equipment, computer stations, and prepared lab hardware for five undergraduate laboratories and the senior design shop.
- Instructed soldering and machine tools classes for undergraduate senior design teams.
- Repaired prototyping equipment: AlteraâĂŹs DE2 FPGA Development and Education Board, CADET II Circuit Trainer, National Instruments ELVIS prototyping platform.
- Assembled and tested microcontroller boards, control laboratory hardware, and new prototyping hardware.

CERTIFICATIONS

Engineer in Training, Licence Number: EIT026136 Dec. 2013

Graduate Certificate in Management of Technology Dec. 2011

MBA level course work focusing on technology innovation and Entrepreneurship

RELEVANT PROJECTS

Operational Amplifier Design Project

- Graduate level team project to implement a 7-transistor op-amp with CMOS transistors with a differential gain input stage and single transistor output stage designed using PSPICE simulation software.

Two Link Robotic Arm Utilizing Passivity Based Control

- Graduate level individual project to design and simulate in MATLAB a passivity based controller comparing the stability and tracking performance of a figure 8 trajectory of a two link robotic manipulator arm with two rotary joints with and without an adaptive controller scheme.

Capacitive Touch Synth-Piano Using PIC Microcontroller

- Undergraduate team project to design a capacitive touch musical keyboard using a PIC18LF4321 MCU and a peripheral capacitive touch-sensing chip communicated over SPI using C programming language.

EXTRACURRICULAR ACTIVITIES

Autonomous Robot

- Using free time to work on building and programming in Python an autonomous robot that will avoid obstacles using an inexpensive single board BeagleBone Black microcomputer with IR sensors and a differential drive system.

Embedded Systems - Shape the World

- MOOC by UT Austin offering a hands-on, learn-by-doing course that shows how to build solutions to real-world problems using embedded systems. Building circuits and programming ARM Cortex-M microcontroller in the C programming language.

PROFESSIONAL MEMBERSHIPS

GA Tech Alumni Association

I.E.E.E.