

Objective: To obtain a research position in the field of RF design and fabrication.

Education: Georgia Institute of Technology Date: August 2005
Bachelor of Science – Electrical Engineering (Honors)

Coursework:

Analog Electronics ECE3025: Electromagnetics ECE3040: Microelectronic Ckts. ECE3041: Instrumentation & Ckts. Lab ECE3042: Microelectronic Ckts. Lab ECE3050: Analog Electronics ECE3065: Electromagnetic Applications ECE4390: Radar & EM Sensing ECE4391: Electromagnetic Compatibility ECE4415: RF Engineering I ECE4418: RF Engineering II	Power Electronics ECE3070: Electrical Energy Conv. ECE4330: Power Electronics Signal Processing ECE2025: DSP Computer Engineering ECE2030: Intro. to Computer Eng. ECE2031: Digital Design Lab. ECE4175: Microcontroller Design
--	--

Computer Skills:	Electronics OrCAD PSpice & Spice 9.2 TI FLTER PRO 1.03 LINC2 ver.2.45 (RF Design) HP VEE PRO	Programming C-Programming Assembly VHDL SCHEME BASIC	PLD/Microcontrollers Altera MAXPLUS II Microchip Mplab v.6.6 BASIC Stamp v.2.2
	Printed Circuit Board Design LPKF CircuitCAM 3.2 LPKF BoardMASTER 3.2	Math & Statistic Tools Matlab ver. 7.0 MathCAD 2001 PRO MS Excel 2003	Web Development HTML Dreamweaver

Additional Skills:

1. Embedded systems design with Microchip & Parallax microcontrollers.
2. Rapid Prototyping using LPKF ProtoMat C-series PCB plotter system.
3. Machine Shop.
4. Computer hardware assembly.

Experience:

Electronics Design Lab-Georgia Tech Manufacturing & Research Design Cplx.*
Electrical Design Engineer (Co-op) Aug 2002 – Sept 2005

1. System & Circuit level design & fabrication of amplifiers in the Audio to HF range customized for use in graduate and faculty research projects.
2. Development & incorporation of embedded microcontroller designs primarily for motion control projects used in faculty and graduate research.

Phillips Business Information, Inc *
Electronics Media Specialist May 2001- Dec 2001

1. Edited & formatted 10+ Industry publications into HTML, PDF & customized formats.
2. Successfully broadcasted industry publications to 10,000+ subscribers electronically.

* References provided upon request.

Honors: Georgia Tech Dean's List
Bechtel MWEST Scholarship Award 2001 and 2002
Phi Beta Kappa Honor Society (Since May 2001)
National Dean's List (2001)

Some Co-op Design Projects:

Analog Electronics:

Audio Amplifier:

Development of 8W low distortion amplifiers with a built in variable function generator for the excitation of piezoelectric buzzers for the ME Fluids Mechanics Research group. (Frequency of operation: DC-100kHz).

Low Noise Amplifier:

Design and fabrication of a wideband, low noise ultrasonic amplifiers for use by the ME MEMS research group.

Embedded Microcontroller Designs:

Infrared Data Transceiver: (Gulfstream Aerospace Corp.)

Development of the software & hardware for a wireless Infrared data transceiver system prototype for Gulfstream Aerospace Corp. to be used as a part of an in-flight control system for passengers, outsourced to the Electronics Design lab. The design involved programming 2 Microchip PIC 18F452 microcontrollers to send out and accept serial data bit streams within a specific baud range and protocol in the transmit and receive modules respectively. The IR transceiver was designed for a maximum range of 20 feet with high immunity to interference.

Linear Actuator:

Development of an open-loop Motor Control System for use in a linear actuator for use by the ME Fluids Mechanics Research Group. The design involved programming a Microchip PIC 18F452 to perform the following tasks:

- Trigger the motor windings of the stepper motor used in the actuator through a Parker motor control module (OEM650).
- Update, store and display the number of steps turned from a user-set start point on an enclosure mounted LCD display.
- Allow the user to set reference points during the motion of the actuator from where the differential displacement is computed and displayed in the form of step counts on the LCD display.
- Allow the user to turn the motor in step, rev or jog mode by the use of push buttons mounted on the enclosure.
- Prevent the motor from stalling when the actuator reaches extreme points.

Stepper Motor Controller:

Designed a low cost open loop motor control system for use in a linear actuator by the ME fluids Mechanics Research group. Design involved programming a PARALLAX based BSIISX controller to half-step a stepper motor used in the actuator to provide a maximum precision of 0.4 degrees per step.