

SUMMARY OF QUALIFICATIONS

- ⤴ 4.5 years research and development experience in a fast-paced, ever changing environment
- ⤴ Responsible for full life-cycle of numerous projects (schematics, simulation, CAD, PCB design)
- ⤴ Working knowledge of a variety of programming languages (C#, Java, PHP, MATLAB)
- ⤴ Excellent hardware and software troubleshooting skills
- ⤴ Adept at multitasking and prioritizing duties
- ⤴ Works well with others as well as independently

EDUCATION

- ⤴ Pennsylvania State University (2002-2006)
- ⤴ Bachelor of Science, Electrical Engineering (Graduated 2006)
- ⤴ Specialization in Control Systems and Signal Processing
- ⤴ Schreyer's Honors 3 Semesters

WORK EXPERIENCE

Paranormal Research Society (PRS) LLC (Sept 2004-Present)

Technical Specialist

- ⤴ Design electronics, including schematics and printed circuit board layout
- ⤴ Write software for in-house applications (PC, Web, and embedded programs)
- ⤴ Electronics assembly, through-hole and SMD soldering
- ⤴ Troubleshoot all designs, both hardware and software
- ⤴ Fabrication of projects
- ⤴ Maintain computers (Windows, Mac, Linux), network, and equipment
- ⤴ Research new scientific techniques and technologies

Website Content Creator

- ⤴ Film new video content
- ⤴ Edit video footage
- ⤴ Create title sequences
- ⤴ Compose title sequence scores
- ⤴ Edit photos for website
- ⤴ Co-Produce Paranormal Insider Television (live streaming web video show)
- ⤴ Co-Edit website articles
- ⤴ Write website articles and create social media content

Arts and Entertainment Network's "Paranormal State" (Oct 2006-Feb 2011)

Technical Consultant

- ⤴ Represent the Paranormal Research Society's technical department on camera
- ⤴ Devise new experiments on a case by case basis
- ⤴ Present data and findings on camera
- ⤴ Research applicable new technology and scientific techniques
- ⤴ Analyze client testimony for alternate theories
- ⤴ Provide video and audio findings for post-production team
- ⤴ Set up and maintain equipment

McDonald's Restaurant (Feb 2002 – Aug 2006)

Food Service

- ⤴ Prepare food in a timely fashion
- ⤴ Train new employees
- ⤴ Clean and maintain restaurant

SKILLS

NI Ultiboard (PCB Layout)	Hardware Troubleshooting	MS Word/OO Writer
NI Multisim (Schematic/Simulator)	Software Troubleshooting	MS Excel/OO Calc
Google SketchUp (CAD)	Project Fabrication	MS PowerPoint/OO Impress
EAGLE Layout (PCB Layout)	Pspice (Schematic/Simulator)	Visio
C#	Electronics Workbench	Adobe After Effects
MATLAB/Simulink	Photoshop/GIMP	Camera Operation
PicBasic Pro	Digi XCTU (XBEE Programmer)	iMovie
Visual Basic	Windows/Mac/Linux OS	Audacity
Java	XAMPP (Apache Web Server)	Web Content Writer
Assembly	MySQL (Database)	Article Co-Editor
PHP	Tight VNC	Speaker/Lecturer
Visual C++	Wordpress (CMS)	Strong verbal/writing skills

EDUCATION HIGHLIGHTS

Computer Vision	Microcontroller Design	Digital Signal Processing
Digital Circuit Design	Image Processing	Multi-Speed Drive Control
C++ Programming	Senior Design Project	Engineering Mechanics
Circuit Analysis/Design	Electromechanical Devices	Control System Design

PROFFESIONAL ACCOMPLISHMENTS

Wi-DARN (v1.0 Completed August 2011) – A wireless multi-sensor array utilizing a 802.11.15 multi-nodal network.

DARN FFT (v1.0 Completed February 2008) - Provides a low frequency spectrum analysis of nine sensor inputs including pressure, EMF, and acceleration.

Virtual Environment Physical Sensor Mapping – Proof of concept project using sensors (temperature, pressure, etc.) mapped to a virtual recreation of a physical environment.

Data Acquisition and Recording Network (v1.1d Completed September, 2007) – Multi-node USB sensor-array created for capturing and displaying sensor data in near real time.

Subtractive Background Motion Detection (Completed October, 2006) – MATLAB application designed to determine and indicate motion in any given video file.

ACADEMIC ACCOMPLISHMENTS

Sight-To-Sound (S2S) (Completed May, 2006) – Group project that employed RFID tag reading to audibly identify a range of objects for a visually impaired individual.

Microcontroller Design Printed Circuit Board Assembly (Completed April 2006) – Aided in the assembly of the next generation Penn State University Microcontroller Design class project boards.

Published Technical Writer (Published 2004) – Essay was written for a Penn State University technical writing course and was later selected to be published in the class's coursebook.

Java Base Number Convertor (Displayed in public, December 2003) – Wrote the initial code for this Penn State Undergrad Research group project, a Java applet that converts any base number to Decimal, Binary, Octal, or Hex. Later, the code was modified by Michael Mansell and exhibited by Emrys Smith.