Overview

I am a self-motivated, hard-working engineer who is looking for a company that takes pride in exciting, high-quality work. I adapt well to new situations and environments, and I thrive when my work pushes past the boundaries of my knowledge and experience.

Education

Bachelor of Science in Electrical Engineering (2003)

University of California, Los Angeles

Henry Samueli School of Engineering and Applied Science

Work Experience

Raytheon Company - Integrated Defense Systems (Since 04/09)

Designed updates to test stations that perform missile validation and re-certification. The work included interacting with the customer and determining which processes could be improved or automated.

Built AutoCAD templates and block libraries in an effort to standardize internal documentation.

Scientific Applications and Research Associates (SARA) (02/05 - 04/09)

**Sensor Integration and On-Board Processing**: C programming of a data-acquisition board to accept multiple inputs from acoustic sensors, process the data, and output the results in real-time.

**Behavior Algorithms for Autonomous Vehicles**: Developed algorithms for autonomous vehicles that describe simple behaviors. Each of these behaviors produced a desired course and speed required to carry out a mission and abide by any "rules of the road" while avoiding terrain, restricted areas, and other vehicles. Each of these behaviors were then integrated in the existing MOOS and IvPHelp frameworks to determine the optimal course of action.

**Image Processing**: Built a Matlab GUI that read the output image data from a FLIR CCD camera, applied geometric and calibration corrections to the image, then processed the data to determine fluence, intensity, and power levels collected.

**Network Analyzer Automation**: Wrote software to allow the user to connect to a network analyzer on the local area network and run through a series of tests. The program would record phase and magnitude data while varying the inputs to the device under test.

**Microwave Antenna Testing**: Standing wave and antenna pattern measurements of a high-power, novel antenna design.

**General Test Engineering**: Designed, developed, and implemented tests for a variety of research applications. The entire process included selection, manufacturing of custom test hardware, debugging and iterating, and maintaining proper documentation. I would then report and defend any test results to a team of engineers and managers.

Luxim Corporation (08/03 - 08/04)

Worked within a small startup company of 5 engineers from the initial stages to VC funding. I helped develop a process to manufacture microwave-driven plasma lamps, running a range of experiments designed to select optimal lamp parameters including lamp chemistry, output spectrum, gas mixture and pressure, and bulb dimensions.

Additional Information

Independent Projects: http://www.votebrian.net

Code Samples: https://github.com/VoteBrian

Bilingual (English, Spanish)

United States Citizen

Willing to relocate