

Matthew Brooks

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OBJECTIVE

Full-time position programming or testing systems where design of digital and embedded systems, experience with MPEG 2 & 4 transport streams, and proven team work skills can be used to contribute to the success of the company.

EDUCATION

Bachelor of Science, Computer Engineering, *Georgia Institute of Technology*, Atlanta, GA, August 2009

Co-op: EG Technology, Inc, Atlanta, GA; *Design Verification & Quality Systems Test Engineer*, '06- '08

Computer Engineering Courses:

Embedded Systems Design (Windows CE/Visual Studio/C/C++), Embedded Microcontroller Design (PIC Microcontrollers), VLSI Advanced Digital Design (Cadence Virtuoso/Synopsys), Senior Design, Computer Architecture & Operating Systems (MIPS ASM/VHDL/C), Computer Mechanisms (MIPS ASM/C), Digital Design Lab (MIPS ASM/VHDL), Computer Networking, Electromagnetics, Microelectronic Circuits & Lab, Digital Signal Processing (MATLAB), Circuit Analysis & Lab, Intro to Computer Engineering (MIPS ASM), and Computer Science 1 & 2 (JAVA).

Major GPA: 3.60; **Overall GPA:** 3.37

SUMMARY OF QUALIFICATIONS

Industry Skills and Experience

- Experience using C/C++, MIPS Assembly, Cadence Virtuoso, VHDL, PSpice, MultiSim, and Linux
- Experience drafting detailed test cases for new feature validation on new products & software builds
- 2 ½ years experience in verification & testing of MPEG head-end encoders & edge encoding devices
- Knowledge of MPEG 2 & H.264 SD/HD transport streams, MPEG Decoders & Transport Analyzers
- Experience making RF & QAM measurements using Spectrum Analyzers and EFA Test Receivers
- Troubleshoot product/system integration software issues quickly and efficiently
- Able to learn new languages, programs, products, and applications quickly

Interpersonal Skills

- Capable of handling multiple tasks simultaneously and take pride in quality work
- Able to communicate and teach by technical and non-technical means
- Understand importance of team work and attention to detail
- Proactive, Motivated, Goal-oriented, Problem-solver

WORK EXPERIENCE

2006-2008 *EG Technology, Inc: Design Verification & Quality Assurance Systems Test Engineer*

Responsible for developing and executing software/hardware verification test plans based on the product requirements document for various product releases of MPEG encoding products made for the Cable Industry. Instrumental in the validation and qualification of the cable industry's first Comcast[®] approved edge encoding product, HEMi[™]. Responsible for conducting weekly meetings on the status of the verification of the HEMi[™] edge encoder product line; providing further explanation to developers on current bugs and suggesting new features for a more robust product. Tested SD encoders and HD transcoders with features such as 3:1 mux rateshaping, VBI, CC, DPI, and IP Streaming. Conducted environmental and interoperability testing at remote facilities such as MET Labs[®] in Maryland and CableLabs[®] in Colorado. Experience in testing EGT's Redundancy Controller which incorporates encoders, Terayon CherryPicker[™] multiplexers, network switches, and IP decoders while testing the ability of the system to recover from real-world failing scenarios.

Summer 2005 *Prime Computer Inc: System Builder/Problem Troubleshooter/Retail Sales*

Total individual sales reached over \$160,000 in just two months. Responsibilities included explaining system specifications to customers, selecting and selling the appropriate components, and building the system. Troubleshooting computer problems included solving software issues, replacing motherboards, processors, memory, hard drives, fans, heat-sinks, and other various components.

ACTIVITIES & INTERESTS

- Briaerean Co-op Honor Society member (2 years)
- IEEE student member (6 years)
- Designing custom Arduino micro-controller projects
- Snowboarding & learning to play guitar