
Matthew John Tilleman

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EDUCATION

January 2007-December 2010	The University of Texas	Austin, TX
MS of Electrical Engineering in Integrated Circuits and Systems Design		GPR 3.667
August 2002-May 2006	Texas A&M University	College Station, TX
BS in Electronics Engineering Technology		In major GPR 3.758

WORK EXPERIENCE

October 2014-Current	Advantest of America	Austin, TX
Applications Engineer - Expert		
<ul style="list-style-type: none">• Design cutting edge ATE test software to verify and characterize world leading ICs.• Design load boards (interface circuit boards) to test microprocessors, GPUs, PAC (performance analog circuits) and automotive ICs.• Lead multiple teams across multiple countries and companies to implement, improve and debug their test strategy needs.• Did a 6-month expat to Nijmegen, Netherlands in 2017 to train the local team on our new PAC solution and implement the first products.		
August 2013-October 2014	Silicon Labs Inc	Austin, TX
Senior Product and Test Engineer		
<ul style="list-style-type: none">• ATE test and product engineer for high speed clock generation ICs.• Developed ATE test programs on the Teradyne Catalyst test platform.• Coordinated with Singapore team to drive wafer level development.• Implemented package QUAL for both 9x9 and 7x7 QFN package variants.		
July 2012-July 2013	Avago Technologies	San Jose, CA
Senior Design Engineer		
<ul style="list-style-type: none">• ATE test and product engineer for fiber optic transceiver ICs.• Brought ATE testing in house on the 93k for cost reduction. Previously test was outsourced to a subcon and test programs were developed on the Teradyne J973.• Work with the modules team and design team to determine specs and requirements then implement characterization and production tests to screen fiber optic ICs on the Advantest 93k.• Work with Singapore and Malaysian teams to implement and debug production tests, determine cost cutting solutions and manage volumes.• Design high speed test interface boards.• Lead FA on ICs to determine failing mechanisms.		
May 2006-July 2012	Advanced Micro Devices	Austin, TX
Senior Product Development Engineer		
<ul style="list-style-type: none">• ATE test lead for world class x86 CPUs, APUs and cutting-edge GPUs.<ul style="list-style-type: none">▪ ATE test development for analog display and high speed digital interfaces.▪ Brought up Verigy 93k ATE platform infrastructure for production testing.▪ Manage a group of engineers and developed the schedules and priorities.		

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- Designed high speed test interface hardware and circuitry and verify its accuracy with a TDR, signal injection and other verification techniques.
 - Developed the first GPU test program.
 - Drove cost cutting and yield improvement projects to reduce product costs.
 - Interfaced with multiple sites, both domestic and international, to drive cross site development.
 - UCT Lead with University Campus Recruiting for Texas A&M and UT Austin.

April 2004-May 2006 **Texas A&M University MISL** **College Station, TX**
Student Research and Design Engineer/ Teacher's Assistant

- Teacher's assistant for two classes in embedded programming.
 - Programming the Motorola HC6805 in assembly (ENTC349)
 - Programming the Freescale MPC555 PowerPC in C (ENTC369)
- Lead research to develop various wireless system including:
 - Component based AM radio for lab to stem high school student's interest in technology.
 - FPGA based software radio.
 - PIC microcontroller based MESH network wireless solutions.

May 2005-August 2005 **Freescale Semiconductors** **Austin, TX**
Test Engineer Internship

- Test/product engineer for Apollo 6, 6PM and 7 line of PowerPC processors on a Teradyne J973
- Automated data collection and analysis. Reduced time, improved accuracy and simplified the data collection and analysis process.
- Ran experiments to characterize the die shear strength under various environment conditions including extreme temperatures and humidity.

December 2002-April 2004 **Universal Computer Systems** **College Station, TX**
Computer Technician

- Troubleshoot and repaired computer components, computers systems and networking devices at the board and system level.
- Performed board level repairs to extend the life of equipment as a cost cutting measure.

ENGINEERING PROFICIENCY

Programming Languages

- System/MCU programming: C, C++, Java, Python, C#, Assembly, LabView, Perl
- RTL/SOC design: Verilog, VHDL, SystemC

Test Equipment

- Credence Sapphire, Teradyne Catalyst, J750 and J973, Advantest 93k
- Proficient with oscilloscopes, spectrum analyzers, TDR and other bench equipment

Organizations

- IEEE member from 2002 to 2006
 - Ran for president of Texas A&M chapter of IEEE Tech in 2005.
- One of 22 students nationwide asked to attend the 2005 Student Leadership Retreat at TI.

Publications

Tilleman, Matthew (AMD), and Elenniss, Steve (Advantest). "Using the V93000 PS9G PRBS Analyzer for PCIe GEN2 ENELB Testing." Proc. of Advantest Voice, DoubleTree by Hilton Hotel, San Jose, CA.
