

David Ellis

Contact Information:

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Education

- **PhD studies in Electrical Engineering Robert D. Kersten Fellowship** University of Central Florida (UCF), GPA 3.932 / 4, Advisor: Dr. Juin J. Liou. Started Fall 2007. Expected graduation date May or December 2012.
- **MS studies in Electrical Engineering Graduated December 2010** University of Central Florida (UCF), GPA 3.9 / 4, Advisor: Dr. Juin J. Liou
- **Bachelors in Computer Engineering Graduated May 2007** University of Central Florida, GPA 3.6 / 4

Work Experience

- **Web Developer/Research Assistant, March 2010 - Today**, UCF Office of Research and Commercialization - Development of internal web applications. Software: ColdFusion, Dreamweaver, Microsoft SQL Server 2005/2008, Javascript.
- **System Administrator/Research Assistant, August 2007 - Today**, University of Central Florida Department of Electrical Engineering and Computer Science, deployed and maintains three Linux servers for the lab, including the development of helper tools for the users of these servers. Also, as a joint project between UCF and Analog Devices: Failure criteria metric under ESD stress conditions. Topics: Gate oxide breakdown characterization and modeling. Software: Custom-designed Perl data processing and plotting tools. Instruments: TLP, vtTLP tester, Keithley 4200, Hanwa HMM tester.
- **Software Developer/Intern, May - July 2006**, Intersil, Development of automated testchip layout software based on XML-based 2-dimensional device definitions (plus device width). Software: Cadence Virtuoso, SKILL, Perl, XML, Javascript.

Development Experience

Turing-Complete Languages

- Perl - Data extraction and plotting (2006-Today)

- Javascript - Data processing, web applications, and automation (yes, Javascript) (2002-Today)
- Bash/TCSH - Processing automation and one-time "throwaway" scripts (2006-Today)
- LATEX - Publications and documentation write-up (2006-Today)
- gnuplot - Data plotting (2007-2010)
- C - Embedded software development and user-level filesystem development (FUSE) (2005-2006)
- make - Software development automation (2009-2010)
- Java - Data processing (2009-2010)
- Lisp/SKILL - Data processing and automation (2006)
- ColdFusion - Web applications (2010-Today)

Turing-Incomplete Markup Languages

- HTML - Web applications (2000-Today)
- CSS - Web applications (2002-Today)
- XML - Web applications, data processing, automation (2006-Today)
- JSON - Web applications (2010-Today)

Databases

- PostgreSQL (2006-Today)
- MSSQL (2010-Today)
- MongoDB (2011-Today)

Major Libraries

- GTK+ - Cross-platform GUI development (Perl, 2008-2010)
- FUSE - User-level Linux/BSD/MacOS X Filesystem development (C, 2006)
- YUI - Web application development and source code compression (Javascript, 2009-Today)

Publications

1. S. Malobabic, D. F. Ellis, J.A Salcedo, Y. Zhou, J.-J Hajjar, J.J. Liou, Gate oxide evaluation under very fast transmission line pulse (VFTLP) CDM-type stress, *IEEE Int. Caribbean Conf. on Cir. Dev. and Sys.*, 2008
2. D. F. Ellis, S. Malobabic, Prediction of Gate Dielectric Breakdown in the CDM Timescale Utilizing Very Fast Transmission Line Pulsing, *International Reliability Physics Symposium (IRPS)*, April, 2009
3. S. Malobabic, D. F. Ellis, J.A Salcedo, Y. Zhou; J.-J Hajjar, J.J. Liou, Very Fast Transient Simulation and Measurement Methodology for ESD Technology Development, *International Reliability Physics Symposium (IRPS)*, April, 2009
4. J. J. Liou, S. Malobabic, D. F Ellis, J. A. Salcedo, J.-J Hajjar, Y. Zhou Transient Safe Operating Area (TSOA) Definition for ESD Applications (invited), *EOS/ESD Symposium*, September 2009.
5. D. F. Ellis, Y. Zhou, J. A. Salcedo, J.-J. Hajjar, and J. J. Liou, Prediction and Modeling of Thin Gate Oxide Breakdown under Arbitrary Voltage Waveforms, *IEEE Transactions on Electron Devices*, vol. 57, no. 9, pp. 2296–2305, September 2010.
6. Y. Zhou, J.-J. Hajjar, D. F. Ellis, A. Olney, and J. J. Liou, A New Method to Evaluate Effectiveness of CDM ESD Protection, *EOS/ESD Symposium*, October 2010.

IEEE Positions Held

- January 2008 - March 2011 Components, Packaging, and Manufacturing Technology Chapter Chair in Orlando Section

IEEE Volunteer Work

- February 2008 IEEE Orlando Section EDS Mini-Colloquium Committee Member
- March 2010 IEEE Orlando Section EDS Mini-Colloquium Committee Member