**Nick Klosterman**

EDUCATION

Purdue University, West Lafayette, IN

* *Master of Science in Electrical Engineering, August 2010*

University of Illinois at Urbana-Champaign, Urbana, IL

* *Bachelor of Science in Electrical Engineering, August 2001*

SKILLS

* C++, Java, Bash scripting, Python, MySQL, MATLAB, LabVIEW, GNUPlot, LaTEX2,Visual Basic, HTML, Arduino uC, Scheme, Git, SVN, SQLite
* \*nix, Microsoft, Macintosh
* Digital Oscilloscope, Pattern Generator, Spectrum Analyzer

EXPERIENCE

**Freelance Projects,** utilizing Linux **2011-2012**

**Foreclosure Sales Google Maps**

* Wrote and maintained software to parse foreclosure data from county websites and enter into private MySQL database
* Geocoded foreclosure data and plotted data using google maps api
* Developed front end to query database for properties of interest
* Developing parsers and adding data to database for new counties of interest

Viewable online at <http://www.djinnius.com/SheriffSales/>

**Desktop Stock Tracker**

* Developed stock tracking software in Python to track performance of brokerage account
* Program calculates various metrics including annualized gain and capital gains taxes upon sale
* Program interfaces with Yahoo! Finance to obtain financial information

**Backcountry.com Deal of the Day Tracker**

* Wrote software to track deals of the day appearing on Backcountry.com's four outdoor & sports deal websites and notify users when items of interest are featured
* Alerts based off of keyword matching are sent via text message or email
* Details of featured deals logged to a MySQL database
* Developed online front-end to allow for users to manage their own notifications as well as to view past product details from the product database

Viewable online at <http://www.djinnius.com/Deals>

**Research Assistant, Purdue University 2007 - 2010**

* Added requested features to C++ weather visualization software from Purdue University's Earth & Atmospheric Sciences faculty
* Implemented data color coding to allow for easier analysis of convection paths in simulation datasets
* Implemented pop-up of 2D image slice of selected convection path
* Wrote agent visualization in C++ for display of video and sensor data, obtained from Postgres database, on floor plan. Software was written for US Army to analyze urban warfare/urban emergency situations.
* Researched viability of using Hadoop and map-reduce algorithm for C++ volume renderer for parallel distributed processing of large datasets
* Co-developed visualization module leveraging the Google Maps API to provide a hands on demonstration of visualization techniques
* Co-developed education module that discussed pros, cons, and pitfalls associated with various software visualization techniques

**Quality Engineer, Siemens Energy and Automation, Bellefontaine, OH 2007**

* Analyzed customer's returned materials establishing root cause of failure
* Evaluated failures, identified solution, and implemented corrective action on manufacturing line
* Wrote technical documents reporting root cause failure of product to customer
* Conducted ongoing product reliability testing
* Wrote Visual Basic code to analyze product test results in MS Access database for degradation in quality using statistical process control methodology
* Improved Visual Basic code for MS Access database to streamline data logging of samples and to make report generation easier

**Qualification/Integration Engineer, IBM & JDS Uniphase, Rochester, MN 2001 - 2006**

* Wrote hardware test suites in LabVIEW to perform product testing across operational temperature, voltage and frequency ranges by interfacing with test equipment via GPIB; Test results stored in MS Access database
* Modifed LabVIEW code to accommodate new products and additional tests
* Performed optical to electrical and electrical to optical characterization tests on 1 Gb/s, 2 Gb/s, and 4 Gb/s fiber optic transceivers to prove compliance Tests included: Fiber coupled power, optical deterministic jitter, stressed receiver sensitivity, and mask margin
* Wrote software front end with graphing functionality in Visual Basic to interface with transceiver's onboard microprocessor for customers to test and evaluate new product
* Wrote software to automate qualification report generation by pulling test data from MS Access database, generating graphs, and using text templates

**Volunteer Research Assistant, Mayo Clinic, Rochester, MN 2005**

* Developed Tcl/Tk software module for ANALYZE software suite allowing for analysis and scoring of computed tomography images of kidney stones

**Wright-Patterson Air Force Base, Dayton OH 2000**

* Developed Java applet simulating unmanned autonomous vehicles
* Implemented flocking algorithm to control vehicle interaction

All project source code viewable at http://www.github.com/nickklosterman

HOBBIES

Member Ghisallo Cycling Team 2011-2012

Avid Triathlete and Cyclist - Achieved 1st in Age Group at Caesar's Creek Triathlon 2011

Private Pilot License holder and Aviation Enthusiast