

**Objective**

Gain and apply my knowledge of Microelectronics Engineering through co-op employment. Available for a 3 to 6 month period beginning May/June 2013

**Professional Qualifications**

Numerous labs in RIT's Semiconductor & Microsystems Fabrication Laboratory  
JMP (Statistical Software); Statistical Process Control and Design of Experiments  
AutoCad  
Windows, UNIX  
C++, Java, PHP, PHP framework CodeIgniter, ASP, JavaScript, jQuery  
MySQL, PostgreSQL and MSSQL

**Education****Rochester Institute of Technology (RIT), Rochester NY****2010 - Present**

Microelectronics Engineering (major); Computer Science (minor); expected May 2015

144 credit hours earned to date. (4<sup>th</sup> year status) **GPA:** 3.52

Dean's List: Fall Quarter 2010, Winter Quarter 2010, Spring Quarter 2010, Spring Quarter 2011

**Courses:**

Thin Film Processes	Engineering Math	Electronics (1 & 2)
Semiconductor Devices (1 & 2)	Computer Science 4	Design of Experiments

**Labs****Intro to Microlithography**

Photoresist coating, pattern transfer and etching (dry and wet), measuring of resist sensitivity and contrast, overlay and registration

**Tools Used:** ASML PAS 5500/200 Stepper, SSI Track, Nanospec, Drytek etcher

**Circuits I**

Several software simulations using Cadence OrCAD (p-spice) and measured hardware characteristics using a multimeter and an oscilloscope to verify the simulations

**Design of Experiments**

Designed and carried out a designed experiment to characterize positive photoresist (HPR 504) to maximize contrast, minimize thickness loss and minimize dose to clear.

**IC Technology**

Constructed PMOS transistors starting from a silicon substrate and measured characteristics of the constructed transistors.

**Tools Used:** CDE Resistivity Mapper, Bruce Furnace, GCA 6700 Stepper, Varian 350D Ion Implanter, PE4400 RF Loadlock Sputter

**Thin Films Processes**

Carried out and analyzed growth and deposition of various thin films on silicon substrates.

**Work Experience****Micron Technology, Manassas, VA (Dry Etch Engineer Intern)****June 2012 – November 2012**

- Troubleshoot manufacturing equipment issues
- Analyzed SPC charts to characterize process related issues
- Designed, developed and put into production a web-based application for viewing internal equipment related data. Used PHP with CodeIgniter as a framework, jQuery, PostgreSQL and MSSQL.

**AWS Truepower, Albany, NY (Software Engineer Intern)****February 2010 – Present**

- Developed a new web-based Remote Time Entry system to support job cost billing which replaced an old client/server application. Used PHP with CodeIgniter as a framework, jQuery and PostgreSQL.
- Designed and developed software to automate QA tests of web based applications using Java and Selenium.
- Maintenance of WindNavigator, built on PHP with CodeIgniter as a framework, PostgreSQL, jQuery.

**Achievements and Activities**

- Black belt in Shito-Ryu Japanese Karate (9 years)
- Eagle Scout – the highest rank in Boy Scouts
- Dean's list at RIT for 4 quarters