Home Address
13450 SW Tulip Ct.
Beaverton, OR 97008
(503) 644-2128
mkempsell@gmail.com

Monica Laurel Kempsell

Objective

To complete a PhD degree with an emphasis in photolithography at Rochester Institute of Technology.

Education

Rochester Institute of Technology 2007 – Current Rochester, NY
Microsystems Engineering

Oregon State University 2004 - 2007 Corvallis, OR
B.S. in Electrical Engineering
Minor in Physics
G.P.A.: 3.95/4.0

Work Experience

Intel Corporation June '06 - August '06 Hillsboro, OR
Technical Intern: Developed design rules for a future generation of technology in Portland Technology Development (PTD) Resolution Enhancement Techniques (RET) Group. Learned how to parametrically generate patterns, simulate with a lithography model, and determine feasibility by analysis.

Intel Corporation June '05 - August '05 Hillsboro, OR
Technical Intern: Characterized a photoresist to obtain the relationship between focus and bright band width for Advanced Process Control in Fab 20 Copper Lithography. Performed focus/exposure and swing curve analysis to reduce bias between nested and isolated features in order to qualify a tool on via layers.

Intel Corporation June ‘04 –August ‘04 Aloha, OR
Technical Intern: Developed a multilayer resist process using a bottom anti-reflective coating for a future generation in the lithography team of Storage Technology Group. Learned optimization techniques such as focus exposure arrays and swing curves.

Intel Corporation June ‘03 –August ‘03 Hillsboro, OR
Technical Intern: Optimized a Carbon Doped Oxide dielectric recipe for a CVD tool in PTD. Learned functionality of metrology tools to characterize the film’s surface.

Intel Corporation June ’02 –August ’02 Aloha, OR
Technical Intern: Processed production wafers and performed preventative maintenance as a Self Sustaining Technician in Fab 15 I-line Photolithography.

Activities and Honors

Dean's List, Intel Honors Internship Program, IEEE, SWE, TBP, HKN Electrical Engineering Society (President ‘06-‘07), OSA (President ‘06-‘07), Mortar Board Senior Honor Society, Undergraduate Research, Innovation, Scholarship and Creativity (URISC) Awardee (‘06-‘07).