1300 30th Street
Apartment D4-14
Boulder, CO 80303

Nathan Feaver

Software Development and Semiconductor Fabrication Engineer

(303)709-8421
nathan.feaver@gmail.com
www.nathanfeaver.com

Summary of Qualifications

MATLAB Programming: Image analysis/processing, contrast enhancement, gamma correction, BW threshold, flattening
Additional Programming Languages: Java, C++
Additional Image Processing: Inkscape, Adobe Illustrator, ImageJ
Strong Analytical Skills, Experienced Written and Oral Communicator, Team-Oriented, Creative and Intelligent

Experience

Research Associate – Semiconductor Device and Image Analysis Engineer
University of Colorado, Boulder — December 2008 to Present

- Developed MATLAB code to analyze images of block copolymer networks for connectivity, tortuosity, persistence
- Managed four undergraduate researchers, developing more efficient processing
- Taught lectures to 45 students and created in-class demonstrations for graduate level class
- Developed novel fabrication process to create graphene nanoribbon transistors
- Precisely tuned silicon interfaces for block copolymer self-assembly and patterning below 30 nm

Research Associate – Polymer Processing Engineer
Colorado School of Mines, Golden — August 2007 to August 2008

- Derived high modulus corn-plastic with carbon nanospheres and gypsum fillers
- Developed cheap, and biodegradeable thermoplastic with enhanced mechanical properties from corn stover fibers
- **Publication**: Sobkowicz, M. J.; Feaver, J. L.; Dorgan, J. R., Clean and green bioplastic composites: Comparison of calcium sulfate and carbon nanospheres in polylactide composites. *Clean-Soil Air Water* **2008,** *36* (8), 706-713.

Technical/Laboratory Skills

Microsoft Excel, Microsoft Publisher, Mathematica, Microsoft Visio, ASPEN, Solid Works, AutoCAD
Lithography/Device Fabrication: photolithography, thin film deposition, chemical vapor deposition, plasma and wet etching, atomic force/scanning electron microscopy, ellipsometry, surface tension measurement, infrared and Raman spectroscopy, electrodeposition
Polymer Processing: Block copolymer thin films, polymer extrusions and melt molding, DSC, DMTA, nuclear magnetic resonance spectroscopy, free radical polymer synthesis, cantilever flexure testing

Education

University of Colorado, Boulder — August 2011

- MS, Chemical and Biological Engineering, 3.7 GPA

Colorado School of Mines, Golden — May 2008

- BS, Chemical Engineering, *cum laude*, 3.5 GPA
- Special Academic Track in Polymers and Materials

Leadership

Head of Fundraising, Engineering Design Project – May 2006 to October 2006

- Raised over $1.5k to fund the design and construction of trebuchet from local businesses and private donations
- Developed sponsorship levels and fundraising campaign to generate 4 corporate sponsors

Student Leader – August 2009 to May 2011 – Intervarsity Graduate Christian Fellowship

- Contributed on core leadership team at a time when club doubled in size

NanoDays Volunteer – April 2010 – Colorado Nanofabrication Laboratory

- Taught attending children and non-scientists about super hydrophobicity using nanoparticles