

## Education:

University of Washington, Seattle, WA  
*Ph. D. in Electrical Engineering*

Beginning September 2005

University of Washington, Seattle, WA  
*Bachelor of Science in Electrical Engineering*

October 2001 – July 2005

## Coursework:

- Digital circuit design: embedded systems design, CMOS circuit design
- Electromagnetics, analog circuit design, signal processing
- Non-major coursework in physics, chemistry, mathematics, statistics

## Research/Experience:

Undergraduate Research Assistant  
October 2003 – Present

Sensors, Energy, and Automation Lab  
University of Washington

- Currently lead a research team of two undergraduates. Our investigations are focused on using fringing electric field sensors to estimate physical property distributions such as fine layers of coat, moisture distribution, and structural integrity within materials.
- Develop controlling software for high-resolution material profiling systems. These systems use a fringing electric field sensor to establish a multiple level profile of physical property distributions in materials.
- Responsibilities include supervising the technical development of multiple projects with the mentioned emphasis, hiring & mentoring team members, and help in developing research plans & objectives for the team.

## Software Skills:

- Programming Languages: C/C++, Java, VHDL
- Operating Systems: Windows 95/98/ME/2000/XP
- Simulation Packages: Matlab, LabVIEW, Maxwell Electrostatics/Parametrics, Maple, H-SPICE, P-Spice, Cadence
- Statistical Software: Minitab, SPSS
- Other Software: Microsoft Office Suite, Corel Draw, Visio

## Honors and Awards:

- Nominated for Department Outstanding Undergraduate Research Assistant Award, Summer 2005
- Sensors, Energy, and Automation Lab Scholarship, Summer 2005
- Named Mary Gates Scholar Winter 2005, Spring 2005
- Electric Energy Industrial Consortium Scholarship, Winter 2005

- Bergseth Scholarship, Spring 2004
- Electric Energy Industrial Consortium Scholarship, Autumn 2004
- Deans List: Autumn 2002, Spring 2003, Autumn 2003, Spring 2004, Summer 2004, Autumn 2004

**Presentations:**

- “Non-Destructive Testing of Materials using Fringing Electric Field Spectroscopy” Center for Process Analytical Chemistry (CPAC), University of Washington, May 2004 (Poster)
- “Non-Destructive Sensing using Fringing Electric Field Sensors” Mary Gates Undergraduate Research Symposium, University of Washington, May 2004 (Poster)
- “Non-Destructive Estimation of Physical Properties using Fringing Electric Field Sensors” Center for Process Analytical Chemistry (CPAC), University of Washington, November 2004 (Poster)
- “Energy Optimization of the Paper Manufacturing Process using Fringing Electric Field sensors” Electric Energy Industrial Consortium poster night, University of Washington, February 2005 (Poster)

**Interests**

Soccer, ping pong, motorcycles, recreational reading