

GORDON S FREEMAN

4110 Paunack Ave, Madison, WI 53711

(617) 960-6165 • gfreeman@wisc.edu

EDUCATION

University of Wisconsin Madison, WI · Graduate Student in Chemical Engineering - Anticipated Degree, PhD
Genomic Sciences Training Program Pre-Doctoral Trainee, 2007-Present

Northeastern University Boston, MA · B.S. in Chemical Engineering, May 2006

RESEARCH EXPERIENCE

University of Wisconsin-Madison (Aug. 2007-present)

Research Assistant

- Applying molecular simulation methods to complex biological systems.
- Studying the confinement of DNA in systems such as viruses and chromosomes.
- Developing methods to determine free energy in biological systems such as DNA.

Center for Advanced Microgravity Materials Processing, Northeastern University (June 2003- Aug. 2004)

Undergraduate Co-op and Independent Studies

- Utilized molecular dynamics techniques to study the separation of racemic mixtures via a chirally modified zeolite.
- Developed analytical chromatographic and mass spectrometric techniques to analyze biosensor test environments with very low analyte concentrations.

WORK EXPERIENCE

Westinghouse Electric Co. (May 2006-Aug. 2007)

Intern

- Supported preconceptual design work for the Next Generation Nuclear Plant.
- Helped develop graduate level course in pressurized water reactor systems.
- Developed statistical analysis of fuel failure data and used this to produce fuel failure curves for safety analyses.

Albany International Research Company (June 2005-Dec. 2006)

Undergraduate Co-op

- Performed finite element calculations on experimental fabrics for use in paper machines.
- Experimented with extrusion techniques for new polymeric blends for use in paper machine fabrics.

MIT Lincoln Laboratory (July 2004-Mar. 2005)

Undergraduate Co-op

- Performed finite element calculations on telescope components for an orbital satellite application.

SKILLS

- Proficient in programming and algorithm development in C, Visual Basic.
- Proficient in finite element softwares ALGOR and PATRAN.
- Familiar with GROMACS molecular dynamics software.

PREVIOUS HONORS AND AWARDS

- Carl S. Ell Scholarship which provided tuition, room, and board at Northeastern University.
- Awarded honorable mention (with teammates Edward Viveiros and Jonathan Leong) in 2006 AIChE National Design Competition.
- Honored with the Joseph Cronin award for excellence in communication by the Department of Chemical Engineering, Northeastern University, 2006.
- Dean's List of Students, for all undergraduate semesters at Northeastern University.

PROFESSIONAL AFFILIATIONS

- American Institute of Chemical Engineers
- Tau Beta Pi Engineering Honor Society

ADDITIONAL INTERESTS

- Classical violinist and traditional irish fiddle player.
- Certified ACA Sea Kayak Instructor.
- Long distance athlete with focus on marathon running and distance hiking.