Fayette W. Shaw

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Education

University of Washington, Seattle, WA — Jun 2006
M.S. in Mechanical Engineering

Carnegie Mellon University, Pittsburgh, PA — Aug 2003
B.S. in Mechanical Engineering
Minors: Robotics, Physics

Coursework

Controls: Linear Multivariate Optimal Control, Robust Control, System Identification, Digital Control
Robotics: Robotic Manipulation, Mobile Robot Programming Laboratory, Mechatronic Design
Math: Mathematical Foundations of Control Theory, Kinematics and Dynamic Systems

Experience

University of Washington, Seattle, WA — *Lab Assistant*
Self Organizing Systems, Electrical Engineering Dept — Jan 2004 – Mar 2005
Analyzed DNA conformations in order develop new models for efficient computation.
Developed infrastructure for molecular dynamics simulation research.
`http://faculty.washington.edu/klavins/research.html`

University of Washington, Seattle, WA — *Teaching Assistant*
Mechanical Engineering Department — Sep 2004 – Mar 2005
Assisted in instruction of ME471 Automatic Control and 373 Dynamic Systems.
Instructed students in office hours and review sessions. Graded assignments and exams.

Segway, LLC, Bedford, NH — *Summer Intern*
Product Development — Jun 2004 – Sep 2004
Designed and implemented proof-of-concept prototype based on market study.
Implemented radio control and user interface on Segway Robotic Mobile Platform (RMP).
`http://www.segway.com`

Robotics Institute, Pittsburgh, PA — *Lab Assistant*, CORAL Lab
Robotic Soccer Segway — Mar 2004 – Jun 2004
Designed and implemented soccer ball catching mechanism for Segway RMP.
Demonstrated robot at American Open 2004.
`http://www-2.cs.cmu.edu/~robosoccer/segway/`

Robotics Institute, Pittsburgh, PA — *Research Assistant*
Life in the Atacama, Field Robotics Center — May 2002 - Dec 2003
Developed instrumentation configuration and concepts of operation for NASA-sponsored robot.
Wrote Matlab scripts for statistical analysis.
Coauthored technical report and maintained website.
`http://www.frc.ri.cmu.edu/atacama/`

Project Work

Mechatronic Design Class Project — Spring 2003
Conceptualized and fabricated an automated four-bar linkage pancake flipper.
Integrated microprocessor, electronics, and system components.

Senior Mechanical Engineering Design Project — Fall 2002
Designed and built motorized walker to assist the elderly.
Performed community service at local assisted-living environment.

Skills

Software Tools: Matlab, Simulink, Mathematica, ANSYS, Solidworks, MS Office, LaTeX, HTML
Programming Languages: C, C++, Java
Machining Skills: Bandsaw, Mill, Lathe, TIG Welding

Activities

University of Washington Women's Ultimate Frisbee — Oct 2004 – present
Red Team Racing, Mapping Team — Jan 2004 – Mar 2004
2004 DARPA Grand Challenge