

Erin Boutwell

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EDUCATION

Northwestern University, Evanston, IL

Ph.D. Candidate, Biomedical Engineering 2005-Present

M.S. Candidate, Biomedical Engineering 2005-Present

Thesis: *Study of Residual Limb/Prosthetic Socket Compliance in Transtibial Amputees*

Concentrations: Lower-Limb Prosthetics

Gait in Persons with Amputations

Rehabilitation Engineering

Virginia Commonwealth University, Richmond, VA

B.S., Biomedical Engineering, *magna cum laude* May 2005

Thesis: *A Rehabilitative Track to Assist in Gait Training in Stroke Patients*

FELLOWSHIPS, AWARDS, AND SCHOLARSHIPS

National Science Foundation Graduate Research Fellowship 2005-Present

Tau Beta Pi Inductee and Member (VA Epsilon Chapter) 2003-Present

Virginia Commonwealth University Dean's List 2003-2005

Virginia Commonwealth University Honors Program 2001-2005

Virginia Commonwealth University Presidential Scholarship 2001-2005

RESEARCH EXPERIENCE

Northwestern University Prosthetics Research Laboratory & Rehabilitation Engineering Research Program, Chicago, IL

Research Assistant 2006-Present

- Investigated the properties of the residual limb/prosthetic socket interface
- Aided in the setup and use of a new intra-socket pressure measurement system
- Performed gait analyses measuring both kinematic and kinetic variables
- Initiated and completed Institutional Review Board protocol and consent form revisions

Virginia Commonwealth University Department of Biomedical Engineering, Richmond, VA

Research Assistant 2004-2005

- Investigated and modeled the motion of the foot during able-bodied gait
- Designed and fabricated a rehabilitation device to assist stroke patients in achieving such motion
- Analyzed the efficiency of device using goniometry and EMG data
- Presented and demonstrated work in a university senior design showcase

University of Cincinnati Department of Biomedical Engineering, Cincinnati, OH

Research Assistant

June 2004-August 2004

- Researched the effects of various interventions on the regeneration of meniscal cartilage
- Trained and mastered tissue cultivation, preparation, and sterilization techniques
- Gained experience in the use and analysis of confocal microscopy

RELATED EXPERIENCE

VCU Department of Biochemistry's 2nd Annual Undergraduate Research Symposium, October 30, 2004 in Richmond, VA. Poster presentation.

Title: *The Effect of Small Intestinal Submucosa (SIS) and a Chemical Gradient on Cell Migration Within Devitalized Meniscal Tissue*

8th International Conference on Inorganic Membranes, July 18-22, 2004 in Cincinnati, OH. Attended.

Tau Beta Pi, VA Epsilon Chapter, 2004-2005. Recording Secretary of chapter.

VCU Student Government Association, Richmond, VA, 2003-2005. Director of the Appointments Committee (appointments with the student government) and served on the Appropriations Committee (distribution of university student activity fee).

COMPUTER SKILLS

Microsoft Office, EVA RealTime, OrthoTrak, MATLAB, SPSS, SolidWorks