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**Andrea Trinward**  
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**Objective:** A National Science Foundation graduate research fellowship.

## Education

B.S. in Biomedical Engineering with a concentration in Biomechanics and a minor in General Psychology, May 2008  
Rensselaer Polytechnic Institute (RPI), Troy NY  
GPA: 3.34 of 4.0

## Relevant Research

**Research Assistant**, Albany Medical College, Albany, New York summer 2007

- Conducted Breast Cancer Research, testing potential side effects of a novel drug called AFPep
- Performed daily Subcutaneous injections of 30 female rats
- Determined the individual estrous cycles via vaginal smears twice daily for 35 days
- Evaluated effect of drug on pregnancy by introducing male rats and monitoring pregnancies
- Developed a research poster and participated in a poster presentation

**Undergraduate Research Position**, RPI, Troy, New York spring 2007

- Utilized a Muscle Mechanics MATLAB Model
- Studied a complex phenomenon known as force depression and force enhancement
- Conducted extensive literature research to become familiar with skeletal muscle physiology and dynamics
- Wrote a comprehensive paper demonstrating knowledge on the subject

## Engineering Experience

**LEGO<sup>®</sup> Robotics Camp Counselor**, RPI, Troy, New York summer 2007

- Taught LEGO<sup>®</sup> Robotics to children between the ages of 9-15, for three two week sessions
- Designed and taught afternoon curriculum in Graphic Design and Animation using Adobe Photoshop and Adobe Flash

**Assistant Engineer**, Castine Energy Services, Waterville, Maine summer 2004, 2005, 2006

- Worked in paper mills and utility plants to improve water and air pollution systems
- Conducted water treatment studies, TSS testing and analysis of data
- Participated in inspections of precipitators to improve opacity, air quality and increase power production
- Performed on site screw press trials of dewatering equipment
- Prepared reports of data and analysis, inspection notes and recommendations for system improvements

## Honors

- 1<sup>st</sup> Place: Rensselaer's 2008 Biomedical Engineering Senior Design Showcase. Dean's List recipient fall 2005-2008, Emily Roebling Scholarship, Rensselaer Leadership Award

## Skills

- Computer: Adobe CS2: Photoshop, Flash, Illustrator, LabView VI, Microsoft Office, Matlab, Maple, Minitab, Robolab 2.9, Solid Works
- Laboratory: Subcutaneous injections, Mechanical testing machine experience, Animal training for work in Animal Research Facilities at Albany Medical College

## Leadership and Activities

- Rensselaer's Biomedical Engineering Society 2004-2008
- Mentor/Volunteer, LEGO<sup>®</sup> Robotics in the greater Albany area 2005-2008
- Secretary, Rensselaer's Supporting Engineers and Creators of the Next Decade 2007-2008
- Rensselaer Varsity Soccer Team: 2004-2005
- Captain, internationally recognized high school a cappella singing group 2000-2004
- Captain, Varsity High School Soccer Team 2003
- Snowboard Instructor, Sugarloaf/USA 2001-2003