

Maria Isabel Restrepo

182 Hope Street
Providence, RI 02912
maria_restrepo@brown.edu

Research Interests

Computer vision and machine learning: 3D object recognition, compositional learning, 3D reconstruction, Bayesian learning of 3D world surface's appearance and geometry from images.

Education

Brown University - Providence, RI

Ph.D Student Division of Engineering, 2006-present

Trinity College, Hartford, CT

B.S with Honors Electrical Engineering, May 2006

Experience

Brown University - Providence, RI

Research Assistant - 2006-present

Research assistant and software developer for Computer Vision applications under the guidance of Professor Joseph Mundy.

Teaching Assistant: Scientific Programming in c++ - 2008

Teaching Assistant for graduate level course. Held help sessions and graded c++ homework projects

Trinity College - Hartford, CT

Research Assistant - Howard Hughes Medical Institute (HHMI)

Developed a micro controller system to collect and classify respiratory signals from young adults. Using fuzzy logic, respiratory signals were classified as normal, respiration with artifacts or apnea. This research was conducted under the guidance of Prof. Taikang Ning.

Teaching Assistant: Introduction to Engineering Design - 2005-2006

Under the guidance of Prof. David Ahlgren, helped undergraduate students design fire-fighting robots. Held weekly lab sessions where students were introduced to basic electrical, mechanical and programming challenges behind robotics.

Residential Assistant - 2003-2006

Helped community development by planning activities within the residence halls, providing peer advice, and general assistance with community living matters.

Co-Chief Engineer, Robot Study Team. Engineering Department - 2006

Helped directing and guiding a group of electrical, mechanical and computer engineers to design and build autonomous robots. Under the guidance of Prof. David Ahlgren, this group competed at the Trinity Fire-Fighting Contest and at the DARPA-AUVIS Intelligent Ground Vehicle Competition (IGVC)

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Captain of Trinity Women's Squash Team - 2006

Conducted team practices. Provided athletic and personal support, guidance and inspiration to the team members.

Honors/Awards

Phi Beta Kappa Society - 2006

Academic Honor Society

NCAA Winter Postgraduate Scholarship - 2006

Award granted to top student/athletes in intercollegiate athletics. First squash player to receive award and first female awardee at Trinity College

Trinity Susan A. Martin Award - 2006

"Outstanding Student-Athlete" Award presented annually to the senior woman who combined excellence on the fields of competition with excellence in the classroom.

President's Fellow in Engineering at Trinity College- 2005-06

Awarded to the top student in Engineering. President Fellows meet with the president of the college and faculty to discuss topics of interest.

New England Small College Athletic Conference All-Academic honor - 2002-2006

Research Activities

Software Development:

Developer, VXL - Computer Vision Libraries - 2002-present

Professional Societies:

Member, Institute of Electrical and Electronics Engineers (IEEE) - 2008-present

Committees:

Member, Trinity College Engineering Advisory Committee (TEAC)- 2007-2008

Judge, Robotics Park Event, East Providence, RI - 2009

Technical Expertise

Programming: C++, C, Matlab, Cmake, Python, LabView

Software Development: VXL - Computer Vision Libraries

Platforms: Mac OSX, Windows, Linux

Other Interests

Squash Player - Part of Colombia's National Team 1999-2007. Currently, Rhode Island Women's Champion

Yoga, biking, sailing.