

Tomasz Malisiewicz

Robotics Institute
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OBJECTIVE

To obtain a challenging research and/or engineering internship related to the fields of computer vision and machine learning.

EDUCATION

Carnegie Mellon University Pittsburgh, PA
Ph.D candidate in Robotics (GPA 4.00) 08/2005-Present
Advisor: Alexei A. Efros

Carnegie Mellon University Pittsburgh, PA
MS in Robotics (GPA 4.00) 12/2008
Advisor: Alexei A. Efros

Rensselaer Polytechnic Institute Troy, NY
B.S. Computer Science/Physics & Math Minor (GPA 4.00) 08/2001-05/2005

Patchogue-Medford High School Medford, NY
Valedictorian (GPA 105.7) Rank 1/500+ 06/2001

EXPERIENCE

Google, Mountain View, CA 06/2008 - 09/2008
Software Engineering Intern

- Worked in Computer Vision Research Group
- Large Scale Image Segmentation for Object Recognition in Images via MapReduce

Robotics Institute, Carnegie Mellon University 09/2005 - Present
Graduate Research Assistant

- Development of object recognition and segmentation algorithms
- Large-Scale Data-Processing and Machine Learning in Matlab

Rensselaer Polytechnic Institute Computer Science Department 05/2004 - 05/2005
Undergraduate Research Assistant - Range Data Registration

- Development of range data registration algorithms in C++
- 3D feature extraction and 3D viewpoint invariant descriptors
- 3D LIDAR visualization using The Visualization Toolkit (VTK)
- Work under supervision of Charles Stewart

Rensselaer Polytechnic Institute Computer Science Department 05/2003 - 09/2003
Undergraduate Research Project - Retinal Image Segmentation

- Development of vasculature extraction algorithms in C++
- Cross Platform Image Processing Software Engineering via CMake
- Image Processing using VXL/ITK C++ Libraries/Toolkits

Brookhaven National Laboratory, Upton NY 06/2002 - 09/2002
Energy Research Undergraduate Laboratory Fellowship

- Abstract: Modeling Relativistic Muons in Electromagnetic Rings via Object Oriented Techniques
- Studied Numerical Solutions to Partial Differential Equations

TEACHING EXPERIENCE

Robotics Institute, Carnegie Mellon University 01/2009 - Present
Graduate Teaching Assistant - Learning Based Methods in Vision (Taught by Alexei Efros)

Robotics Institute, Carnegie Mellon University 08/2006 - 12/2006
Graduate Teaching Assistant - Graduate Computer Vision (Taught by Martial Hebert)

Rensselaer Polytechnic Institute CS Dept 01/2004 - 05/2004, 01/2003-05/2003
Undergrad Teaching Assistant - Computer Science II

Rensselaer Polytechnic Institute CS Dept 09/2003 - 12/2003
Undergrad Teaching Assistant - Data Structures and Algorithms

Rensselaer Polytechnic Institute, Advising and Learning Center 09/2001 - 05/2002
Tutor - Computer Science, Physics, Calculus

PUBLICATIONS

[1] T. Malisiewicz, A. A. Efros: "Recognition by Association via Learning Per-exemplar Distances".
In CVPR, June 2008.

[2] T. Malisiewicz, A. A. Efros: "Improving Spatial Support for Objects via Multiple Segmentations."
In BMVC, September 2007.

[3] B. King, T. Malisiewicz, C. Stewart, R. Radke: "Registration of Multiple Range Scans as a
Location Recognition Problem: Hypothesis Generation, Refinement and Verification." 3DIM 2005.

COURSEWORK

- Probabilistic Graphical Models, Machine Learning, Statistical Machine Learning, Appearance Modeling, Computational Vision, Advanced Perception, Artificial Intelligence, Soft Computing, LISP for AI, Image Registration Techniques, Pattern Recognition, 3D Computer Graphics, Operating Systems
- Kinematics Dynamics & Control, Theoretical Physics, Quantum Mechanics, Electromagnetic Theory, Complex Variables, Linear Algebra

COMPUTING SKILLS

Languages: C/C++, Matlab, Java, \LaTeX , LISP, XHTML/XML

Systems: Strong Linux/Unix Skills, Windows, Mac OS X

HONORS

National Science Foundation Graduate Research Fellowship 05/2006-Current

Rensselaer Polytechnic Institute Mathematics/Science Medal Scholarship 05/2000

National Physics Team Semifinalist (approx 180 students in USA) 05/2001