

CURRICULUM VITAE

Ekaterina Taralova

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EDUCATION

- PhD Candidate, Computer Science, Carnegie Mellon University, August 2008 - present.
- Bachelor of Science, Computer Science and Mathematics, May 2007, The University of Arizona, Cumulative GPA: 3.91/4.0 Dean's List with Distinction, College of Science Outstanding Senior.

PUBLICATIONS

- "Structured Bag of Words for Activity Recognition in Videos,"
PhD Thesis Proposal, 2013¹
- "*Source Constrained Clustering*"
E. Taralova, F. De la Torre Frade, and M. Hebert,
in International Conference on Computer Vision, 2011.
- "*Modelling and visualizing morphology in the fungus Alternaria*"
E. Taralova, J. Schlecht, K. Barnard, and B. M. Pryor,
Fungal Biology, Vol. 115, 2011
- "*Temporal Segmentation and Activity Classification from First-person Sensing*"
E. Spriggs², F. De la Torre Frade, and M. Hebert,
in Computer Vision and Pattern Recognition, Workshop on Egocentric Vision, 2009
- "*Inferring Grammar-based Structure Models from 3D Microscopy Data*"
J. Schlecht, K. Barnard, E. Spriggs², B. Pryor,
in Computer Vision and Pattern Recognition, 2007
- "*Modeling complex 3D structure in Alternaria and applications to morphometric analysis*"
E. Spriggs², J. Schlecht, K. Barnard, B. Pryor,
Annual Meeting of the Mycological Society of America, 2007
- "*Predicting emotional experience from autonomic physiology using machine learning methods*"
E. Spriggs², E. Butler, K. Barnard, F. H. Wilhelm, J. J. Gross,
Annual Meeting of the Society for Psychophysiological Research, 2007

HONORS AND AWARDS

- National Science Foundation Graduate Student Research Fellowship, Aug 2008 - Aug 2011
- Computing Research Association Outstanding Undergraduate Awards Finalist, 2007
- College of Science Outstanding Senior and Galileo Circle Scholar, University of Arizona, 2007
- Computer Science Department Outstanding Senior and Excellence in Undergraduate Research Awards, University of Arizona, May 2007
- "*Modeling and Visualizing Alternaria*," first place, Undergraduate Student Showcase, Computer Sciences Field and the BIO5 Institute Innovator Award - University of Arizona, Nov 2006
- "Pillars of Excellence" Award, Honors College Scholar, University of Arizona, Feb 2006
- "*Detecting Tone and Textual Semantics in the Context of Human Interaction*," first place, Undergraduate Student Showcase, Computer Sciences Field, University of Arizona, Nov 2005

¹ Thesis proposal document and presentation available upon request.

² Published under E.Spriggs, now publishing under E.Taralova

- *“Detecting Tone and Textual Semantics in the Context of Human Interaction”* University of Arizona Undergraduate Honors Research Grant, Mar 2005 – Feb 2006
- “Super Achiever Award,” International Student Association, University of Arizona, Mar 2005
- “Beyond Silicon Computing Summer School,” Caltech, Pasadena CA, June 14th - July 9th 2004
- *“Flying Robots Capable of Recognizing Man-Made Structures”* Undergraduate Honors Research Grant, University of Arizona, Mar 2004 - Feb 2005
- Full tuition waiver scholarship from the University of Arizona, Aug 2002 - May 2006

OTHER RESEARCH ACTIVITIES

- *“Modeling intonation and physiology in emotional conversations”* Undergraduate Honors Thesis, advisers: Dr. Kobus Barnard, Dr. Emily Butler, May 2007
- *“Predicting emotional experience from autonomic physiology and behavior using machine learning methods”* – advisers: Dr. Emily Butler, Dr. Kobus Barnard, Aug 2006 - Aug 2008
- *“Modeling and Visualizing Alternaria”* - Interdisciplinary Undergraduate Biology Research, advisers: Dr. Barry Pryor, Dr. Kobus Barnard, University of Arizona, May 2005 – Aug 2008
- *“Eliminating the need of sensors in human-computer interaction in a CAVE”* – adviser: Dr. Kobus Barnard, June 2005 - Aug 2008
- *“Efficient Simulation of Stabilizer States Using the Graph State Approach”* - Caltech Beyond Silicon Summer School, Pasadena, CA, June 14th - July 9th 2004, advisers: Dr. Dave Bacon (Caltech), Dr. Isaac Chuang (MIT)
- *“Development of an Autonomous Aerial Reconnaissance System”* International Aerial Robotics Competition, Fort Benning, GA, June 2003 (Competition best paper), adviser: Dr. Kobus Barnard

OUTREACH AND SERVICE

- Computer Science Department Graduate Student Social Organization leader, Carnegie Mellon University, 2010 - present
- Quality of Life Technology Student Council Social Char, Carnegie Mellon, 2011 - 2012
- Doctoral Review Committee, Computer Science Department, Carnegie Mellon, 2011 - 2012
- Open House Committee, Computer Science Department, Carnegie Mellon, 2009 - 2012
- Founder and president of “All for Education” - non-profit organization that brings online resources from academia and the community to everyone, 2007 - 2008
- Wildcat School, Tucson, AZ - science lab tours lead, 2006 – 2008
- University of Arizona College of Science Ambassador, 2005 – 2007
- Science and Mathematics Education Center volunteer, Tucson, AZ, 2004 - 2007
- Lunar and Planetary Lab, University of Arizona, Public Outreach Events volunteer, 2004 - 2007
- “Quantum and Molecular Computing Club” founder, University of Arizona, 2004 – 2005
- Boys and Girls Clubs of Tucson, AZ, volunteer, 2003 – 2007

PROFESSIONAL EXPERIENCE

- Undergraduate Research Assistant, University of Arizona (2004 – 2005, 2006 – 2008)
- Systems Support, University of Arizona (2003 - 2004, 2005 – 2006)
- Online Generator of 3D mathematical models for fungi from the genus *Alternaria* using L-systems: <http://vision.cs.arizona.edu/taralove/lssystem.html>
- Research projects coded in Matlab, C, Perl, PHP, JavaScript, C++