Dennis W. Strelow

Home Address:
1046 Devonshire Curve
Bloomington, MN 55431
cell phone: (412) 720-2791

Online:
http://www.dennis-strelow.com
strelow@gmail+jobsearch.com

EDUCATION

Fall 1998 - Fall 2004 **Carnegie Mellon University**, Pittsburgh, Pennsylvania
Ph.D. in computer science
Research in motion estimation from image and inertial measurements, omnidirectional vision, robust image tracking, long-term motion estimation, distributed real-time stereo, and web cache prefetching
Research partially supported by a NASA GSRP fellowship, summer 2001 to summer 2004

Fall 1994 - Summer 1996 **University of Illinois at Urbana-Champaign**, Urbana-Champaign, Illinois
M.S. in computer science
Thesis: "Surfaces from tomographic data"
Coursework in image processing, computer vision, magnetic resonance imaging, operating systems, and algorithms

Fall 1990 - Spring 1994 **University of Wisconsin-Madison**, Madison, Wisconsin
B.S. in computer science and mathematics
Advanced coursework in:

numerical analysis	differential equations	linear algebra	symbolic logic
numerical linear algebra	artificial intelligence	computer architecture	abstract algebra
advanced calculus	compilers	theoretical computer science	

Summer 1993 **University of Nebraska-Lincoln**, Lincoln, Nebraska
Research on the restoration of AVHRR images with small convolution kernels
S. Reichenbach, D. Koehler and D. Strelow, Restoration and reconstruction of AVHRR images, *IEEE Transactions on Geoscience and Remote Sensing*, 33(4):997-1007, May 1995

EMPLOYMENT HISTORY

Spring 2005 - Present **Senior Research Scientist, Honeywell Advanced Technology Laboratory**, Minneapolis, Minnesota
Designed and implemented algorithms for biometrics applications, sensor fusion, vision-aided unmanned air vehicle navigation, PTZ camera control, propagating high-resolution detail between datasets of different modalities
Dennis Strelow and Yunqian Ma, A Gibbs sampler for propagating high-resolution detail between datasets of different modalities, submitted to *IEEE Computer Vision and Pattern Recognition (CVPR) 2006*

Fall 1996 - Summer 1998 **Software Engineer, K^2T Inc.**, Pittsburgh, Pennsylvania
Developed and implemented algorithms for modeling from video and for modeling architecture from still photos
Dennis Strelow, Warren Gardner, Regis Hoffman, Jeff Mishler and Fred Persi, A shape and motion engine for parameterized models, *Proceedings of the 1998 DARPA Image Understanding Workshop*

Spring 1996 - Summer 1996 **Research Assistant, National Center for Supercomputing Applications**, Urbana-Champaign, Illinois
Developed new algorithms for the construction of polyhedral surface models from volumetric data and for their visualization and manipulation in NCSA's CAVE virtual reality environment
Dennis W. Strelow, Clinton S. Potter and Paul C. Lauterbur, The construction and visualization of surfaces from MRI data, NCSA Technical Report 036, August 1996

Fall 1994 - Fall 1995 **Teaching Assistant, University of Illinois**, Urbana-Champaign, Illinois
Teaching assistant for artificial intelligence and introductory programming classes
Responsibilities included leading discussion sections and holding exam review sessions and creating homework programming exercises and exam material

Summer 1995 **Graduate Research Assistant, Los Alamos National Laboratory**, Los Alamos, New Mexico
Developed algorithms for medical image applications, including the analysis of computed tomography images
Developed algorithms for the LAPKTBOX image processing toolbox

Summer 1994 **Summer Research Assistant, National Solar Observatory**, Sunspot, New Mexico
Developed algorithms for tracking erratic sunspot motion and for measuring the intensity of solar flares
E. Reiger, D.F. Neidig, D.W. Engfer and D. Strelow, The role of high-energy protons and electrons in powering the solar white light flare emissions, *Solar Physics*, 167:307-320, 1996