

Timothy J. Burns

Computer Science and Engineering
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Objective

To obtain practical and applicable research experience in the field of computer vision.

Education

Ph.D. Computer Science, University at Buffalo, 2011 (Expected)

B.S. Computer Science (Minor in Mathematics), University at Buffalo, 2006, *Summa Cum Laude*

A.S. Computer Science, SUNY Alfred, 2004.

Research Experience

Independent Study Spring 2008
Jason J. Corso University at Buffalo
Image coding, and developing a Bayesian hierarchical model for document images.

Independent Study Fall 2007
Stuart C. Shapiro University at Buffalo
Working on, and creating simple driver programs for a Magellan Pro robot.

Independent Study 2005–2006
Matthew J. Beal University at Buffalo
Machine Learning, and applying Bayesian models. Also applying Hierarchical Dirichlet Processes to the problem of word sense disambiguation.

Relevant Courses

The following courses have been a part of my undergraduate/graduate career at the University at Buffalo:

CSE 574 - Machine Learning

CSE 555 - Pattern Recognition

CSE 573 - Computer Vision and Information Processing

EE 531 - Probability and Stochastic Processes

CSE 668 - Animate Vision Principles

CSE 672 - Bayesian Vision

Teaching Experience

Teaching Assistant, Algorithms and Data Structures, University at Buffalo, Spring 2008

Teaching Assistant, Algorithms and Data Structures, University at Buffalo, Fall 2007

Teaching Assistant, Knowledge Representation and Reasoning, University at Buffalo, Spring 2007

Teaching Assistant, Operating Systems, University at Buffalo, Fall 2006

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Employment

SUNY Alfred, Computing Services Alfred, NY
Computer Support Technician 2002–Summer 2005
Served as a user support technician for students, faculty and staff. Also aided in the preparation and maintenance of computer labs and the development of some software.

Projects

Software Engineering University at Buffalo
Fall 2005

Co-developed an application for the Center for Handicapped Children in Buffalo, NY which enables a user with restricted or loss of movement in the limbs to fully operate a computer system via a one-touch input device.

Computer Vision University at Buffalo
Fall 2006

Worked on a system to automatically detect broken fibers in images of fiber materials.

Animate Vision University at Buffalo
Spring 2007

Worked on an automatic gaze control algorithm for a foveal vision system.

Modern Networking Concepts University at Buffalo
Fall 2007

Co-developed a simple peer-to-peer file transfer program based on the Gnutella protocol.

Bayesian Vision University at Buffalo
Spring 2007

Working on creating a Bayesian hierarchical framework for representing and synthesizing the structure of document images.

Service

President, Association of Computing Machinery, SUNY Alfred, 2003–2004

Treasurer, Association of Computing Machinery, SUNY Alfred, 2002–2003

Honors and Awards

Motorola Scholarship, University at Buffalo, 2006

Association of Old Crows Scholarship, University at Buffalo, 2006

Tau Sigma Transfer Honors Society, University at Buffalo, 2005

Golden Key International Honors Society, University at Buffalo, 2005

Chancellor's Award for Student Excellence, SUNY, 2004.

Computer Skills

Expert: C++ , C, Java, Matlab

Intermediate: L^AT_EX, Perl

Basic: Other assorted languages

Can pick up and use most languages with ease and in a relatively short amount of time.