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ACADEMIC APPOINTMENTS **Postdoctoral Scholar** July 2012 to present
School of Life Sciences, Arizona State University
• Focus: Behavioral bio-mimicry of animals with emphasis on social insects
• Affiliations:
• Complex Adaptive Systems Initiative
• Center for Social Dynamics and Complexity

Postdoctoral Researcher September 2010 to June 2012
Department of Computer Science and Engineering, The Ohio State University
• National Science Foundation Cyber-Physical Systems (ENG, ECCS)
• Autonomous Driving in Mixed-Traffic Urban Environments (#0931669)
• Automatic verification of hybrid systems

PROFESSIONAL EXPERIENCE **National Instruments**, Austin, Texas USA

Hardware R&D Intern for Multifunction DAQ **June 2003 to September 2003**
• Designed final verification testing fixture for use with STC2 MIO products.
• Designed and executed study of the effect of varying burn-in time on long-term drift of common industry voltage references.

Hardware R&D Intern for Multifunction DAQ **June 2002 to September 2002**
• Designed and performed validation tests on new 16-bit 800 kHz NI-6120 SMIO DAQ board.
• Designed high quality filter/amplifier source for use with NI-5411 arbitrary function generator.

IBM Network Storage, Research Triangle Park, North Carolina USA

Core Systems Software Developer for FlexNAS **June 2001 to September 2001**
• Designed and implemented high-availability, redundant internode communications sub-system.
• Participated in software development of various vital box services.

CallTech Communications, Columbus, Ohio USA

Information Technology Systems Engineer **June 1997 to May 2001**
• Responsible for the acquisition, setup, maintenance, and administration of all Internet hardware and software supporting NetWalk Internet service and web presence provider.
• Designed and implemented state of the art open source high-availability load balancing system supporting thousands of virtual servers.
• Developed software call center support software for clients such as CompuServe, AOL, and Priceline.

MegaLinx Communications, Dublin, Ohio USA

Web Developer and Support Representative

June 1995 to May 1997

- Produced web content for commercial clients.
- Assisted in administration of UltraSPARC, x86, 68020, 68030, and PowerPC systems running Sun Solaris, Linux, Microsoft DOS, Microsoft Windows NT, and Apple Macintosh operating systems.
- Developed multi-platform open source file sharing solution.
- Provided technical support for Internet and web presence customers.

STUDENT
APPOINTMENTS

The Ohio State University, Columbus, Ohio USA

Teaching Assistant

September 2007 to August 2009

(sample graded material and student evaluations available upon request)

- Instructor for ECE 327: Electronic Devices and Circuits Laboratory I
 - Autumn 2007, Winter 2008 (2 sections), Spring 2008 (2 sections), Winter 2009 (2 sections), and Summer 2009
 - Sample student evaluations available upon request
 - Responsible for 1 hour lecture and supervision of 3 hour laboratory where junior and senior undergraduate students design and implement infrared modem and speaker driver for analog electronic audio signals
 - Developed hundreds of pages of supplementary course material, including a course web page archived at <http://www.tedpavlic.com/teaching/osu/ece327>
- Grader for ECE 481 Ethics in Electrical and Computer Engineering
 - Autumn 2007 and Autumn 2008
- Instructor for ECE 209: Circuits and Electronics Laboratory
 - Autumn 2008
 - Sample student evaluations available upon request
 - Responsible for 0.5 hour lecture and supervision of 3.5 hour laboratory where sophomore undergraduate students learn how to use basic laboratory equipment to study properties of electronic circuits
 - Developed supplementary course material, including a course web page archived at <http://www.tedpavlic.com/teaching/osu/ece209>
- Instructor for ECE 557: Control, Signals, and Systems Laboratory
 - Summer 2008 (2 sections) and Summer 2009
 - Sample student evaluations available upon request
 - Responsible for 0.5 hour lecture and supervision of 3.5 hour laboratory where senior undergraduate students combine **Simulink**, with **dSPACE RTI1104** real-time control hardware and software to do analysis and control implementation for linear systems
 - Developed supplementary course material, including a course web page archived at <http://www.tedpavlic.com/teaching/osu/ece557>
- Lab Instructor for ECE 758: Control Systems Implementation Laboratory
 - Spring 2009 (2 sections)
 - Sample student evaluations available upon request
 - Responsible for 0.5 hour lecture and supervision of 3.5 hour laboratory where graduate students and senior undergraduate students combine **Simulink**, with **dSPACE RTI1104** real-time control hardware and software to do analysis and advanced control implementation for linear and non-linear systems
 - Developed supplementary course material, including a course web page archived at <http://www.tedpavlic.com/teaching/osu/ece758>

National Science Foundation GK-12 Fellow

September 2006 to October 2007

Developed, implemented, and evaluated daily inquiry-based fourth-grade science lessons for a local inner-city public school class.

Instructor

March 2002 to June 2004

- Member of **Fundamentals of Engineering for Honors** instructional team.
- Special graduate teaching appointment as undergraduate.
- Lectured weekly laboratory on engineering fundamentals (ENG H191, H192, and H193).
- Trained in-class undergraduate teaching assistants in laboratory procedure.
- Graded weekly lab reports and provided laboratory exams.

Teaching Assistant

September 2000 to March 2002

- Assisted **Fundamentals of Engineering for Honors** instructional team.
- Provided in-class support to first-year engineering students (ENG H191, H192, and H193).
- Graded daily assignments on programming and drafting.
- Developed on-line journal submission and report system for Physics Education Research Group (PERG).

Undergraduate Researcher

September 2000 to March 2002

- Participated in the **Europa Undergraduate Research Forum**, a part of the **Reusable Software Research Group**.
- Worked to improve undergraduate education of component based software engineering topics.
- Researched needed changes to **RESOLVE/C++** implementation for **ANSI/C++** compliance.

Grader

September 2001 to December 2001

- Graded daily electromagnetics assignments (ECE 311).