

# Curriculum Vitae

Amy K. Hoover  
School of EE and Computer Science  
University of Central Florida

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## EDUCATION

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- Ph.D. Computer Science** University of Central Florida, In Progress  
Advisor: Kenneth O. Stanley, School of Electrical Engineering and Computer Science.
- B.S. Computer Science, with University Honors** University of Central Florida, 2009  
Honors Thesis: NEAT Drummer: Computer-Generated Drum Tracks  
Advisor: Kenneth O. Stanley, School of Electrical Engineering and Computer Science.
- B.S. Mathematics, with University Honors** University of Central Florida, 2009

## PUBLICATIONS

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- Amy K. Hoover and Kenneth O. Stanley. “Exploiting Functional Relationships in Musical Composition.” *Connection Science Special Issue on Music, Brain, & Cognition* **21**, 227–251 (2009).
- Amy K. Hoover, Michael P. Rosario, and Kenneth O. Stanley. “Scaffolding for Interactively Evolving Novel Drum Tracks for Existing Songs.” In Mario Giacobini et. al. (Editor), *Proceedings of the Sixth European Workshop on Evolutionary and Biologically Inspired Music, Sound, Art and Design (EvoMUSART 2008)*, pp. 412–422 (Springer, 2008).  
**Winner of the Best Paper Award.**  
**(out of 31 submissions).**

## RESEARCH EXPERIENCE

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- Graduate Researcher.** University of Central Florida, 2009-present  
Advisor: Dr. Kenneth O. Stanley, School of Electrical Engineering and Computer Science.
- Undergraduate Honors Thesis.** University of Central Florida, 2008  
Title: NEAT Drummer: Computer-Generated Drum Tracks  
Advisor: Dr. Kenneth O. Stanley, School of Electrical Engineering and Computer Science.
- Undergraduate Researcher.** University of Central Florida, 2007-2009  
Advisor: Dr. Kenneth O. Stanley, School of Electrical Engineering and Computer Science.
- NSF REU in Machine Learning.** University of Central Florida, 2007  
NEAT Drummer: Interactive Evolutionary Computation for Drum Pattern Generation  
Advisors: Dr. Kenneth O. Stanley, Dr. Michael Georgiopoulos, School of Electrical Engineering and Computer Science.
- Undergraduate Lab Assistant.** University of Central Florida, 2004-2005  
Isolated DNA, sequenced *Agkistrodon piscivorus* (cottonmouth) mitochondrial DNA  
Advisor: Dr. Christopher L. Parkinson, Department of Biology.

## POSTERS

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- Showcase of Undergraduate Research Excellence.** University of Central Florida, 2008  
Title: Automatically Generating Drum Tracks for Existing Songs with a Computer  
Advisor: Kenneth O. Stanley, School of Electrical Engineering and Computer Science.  
**1st place in Physical Sciences, Mathematics, Computer Science and Engineering.**  
**(out of 30 submissions)**
- Showcase of Undergraduate Research Excellence.** University of Central Florida, 2005  
Title: Snake Mitochondrial Genomics  
Faculty Lab Advisor: Christopher L. Parkinson, Department of Biology.

## PATENTS PENDING AND INVENTION DISCLOSURES TO UCF

**Pending.** Amy K. Hoover, Michael Rosario, and Kenneth O. Stanley (Patent Pending since July, 2008).  
*System and Method for Evolving Music Tracks*. University of Central Florida

**Disclosure.** Amy K. Hoover and Kenneth O. Stanley. *NEAT Drummer Enhancement*. October, 2007.

## TEACHING EXPERIENCE

**Undergraduate Teaching Assistant.** University of Central Florida, 2008

Course: Introduction to Artificial Intelligence and Neuroevolution

Designed and taught a course on artificial intelligence to specially selected high school students in the Burnett Honors College Summer Institute

Instructor: Arup Guha, School of Electrical Engineering and Computer Science.

**Undergraduate Teaching Assistant.** University of Central Florida, 2007

Course: Intermediate Java

Instructor: Arup Guha, School of Electrical Engineering and Computer Science.

**Mathlab Tutor.** University of Central Florida, 2004-2006

Tutored students in the following subject areas: Finite Mathematics, Trigonometry, Geometry, College Algebra, Calculus, Differential Equations

## HONORS AND AWARDS

2009 Upsilon Pi Epsilon Jim Nolen Scholarship

2009 UCF Trustees Doctoral Fellowship

2009 Best Undergraduate Student Award in Computer Science

2008 Order of the Pegasus Award Nomination by EECS

2008 Showcase of Undergraduate Research, 1st place in Physical Sciences, Mathematics, Computer Science and Engineering (out of 30)

2008 Winner of Best Paper Award, EvoMUSART (out of 31)

2007 Upsilon Pi Epsilon: Computer Science Honors Society (2007 - present)

## MEMBERSHIPS

**Women in Electrical Engineering and Computer Science.** University of Central Florida, 2008 - present

**Evolutionary Complexity Lab.** University of Central Florida, 2007-present

**Association of Computing Machinery.** University of Central Florida, 2007 - 2009

Position: ACM at UCF President 2007-2008

**Upsilon Pi Epsilon: Computer Science Honors Society** University of Central Florida, 2007 -present

Position: Secretary Spring 2009