

- Education**      **M.S./Ph.D, Computer Science – Artificial Intelligence**, begun September 2005  
*University of Massachusetts Amherst (UMass Amherst)*, Amherst, MA  
Advisor: Hava T. Siegelmann      GPA: 3.86/4.0
- B.S., Computer Science, Minor in Mathematics**, Summa Cum Laude, May 2005.  
*Virginia Polytechnic Institute and State University (Virginia Tech)*, Blacksburg, VA  
Overall GPA: 3.86/4.0      Major GPA: 3.83/4.0      University Honors Program
- Recent Experience**
- Research Assistant/DHS Fellow, BINDS lab at UMass Amherst**, Amherst, MA. Fall 2005 - Present
- Research in artificial life systems, biologically inspired systems, and neural networks
  - Webmaster for lab website
- Alternative Sponsored Fellow, Pacific Northwest National Lab**, Richland, WA. Summer 2007
- Mathematical Approaches to Infrastructure Resilience
- Software Design Engineer in Test Intern, Microsoft Corp**, Redmond, WA. Summer 2005
- Created testing tool in C# to allow testers to generate items for manual tests in Outlook
  - Owned multiple features as primary tester – in charge of test planning, documentation, and execution
  - Automation engineering in C#
- Teaching Assistant, Computer Science, Virginia Tech**, Blacksburg, VA. Fall 2004, Spring 2005
- Assisted students with homework and projects, graded homework, created answer keys
- SLBM Co-op, Naval Surface Warfare Center**, Dahlgren, VA. Summer 2004
- Analyzed Submarine Launched Ballistic Missile (SLBM) software
  - Designed an algorithm and automated with a shell script, AWK script, and sed script
  - Security clearance: **SECRET** (interim obtained, has since expired)
- Quality Assurance Intern, Meridium**, Roanoke, VA. Summer 2003, Spring 2004
- Took part in quality process for application modules, from design to release
  - Designed and Executed Regression tests with Mercury Test Director
  - Automation engineering with Mercury Quick Test Pro & Visual Basic
  - Managed work tickets using Rational Clear Quest
- Honors**
- 2008 Grace Hopper Celebration of Women Scholarship
  - 2007 Verizon Rising Star Fellowship, \$2000
  - 2006 - 2009 Department of Homeland Security Graduate Fellowship
  - 2006 Google Anita Borg Scholarship, \$10,000
  - Phi Beta Kappa Honor Society
  - 1<sup>st</sup> place, Industry pick – VT Undergraduate Research in Computer Science Spring 2005 Symposium
  - Collaborative Research Experience for Undergraduates (CREU) Research Grant, Fall 2004 – Spring 2005
  - NSF REU, Spring 2005
  - Poetry published in *The Best Poems and Poets of 2002*
  - Undergraduate Engineering & Computer Science Scholarships: Eleanor Davenport Leadership Scholarship, \$2000; Anne and George Gorsline Scholarship, Verizon Scholarship, Investment in Excellence Scholarship, \$1000 each
  - Undergraduate Service Scholarship: William Wright Scholarship, \$500
- Activities**
- UMass CS Graduate Representative (2008-2009)
  - UMass CS Diversity Committee (2007-2008)
  - UMass CS Women's Activities Chair (2006)
  - UMass Argentinian Tango Club (2005)
  - VT Association for Women in Computing (2001-2005): Women in Computing Day co-chair
  - Virginia Tech Fencing Club (2001-2005): Vice President, Webmaster, Saber Squad Captain
  - Marching Virginians (2001-2003): Piccolo Rank Captain, Piccolo Section Webmaster
  - Golden Key International Honour Society (2003-2005): Chapter Webmaster, Regional Website Award
  - Computer Science Information Session Volunteer (2004-2005)
  - CS<sup>2</sup>, Computer Science Community Service (2004-2005)

## **Publications**

- M. Olsen, N. Siegelmann-Danieli, and H. Siegelmann. "Robust Artificial Life Via Artificial Programmed Death." *Artificial Intelligence*. 172 (2008) 884-898.
- M. Olsen, K. Harrington, H. Siegelmann. *Emotions for Strategic Real-Time Systems*. AAAI Emotion, Personality, and Social Behavior Technical Report (SS-08-04), pp. 104-110. March 2008.
- M. Olsen and H. Siegelmann. "Multi-Agent System that Attains Longevity via Death." *Proceedings of the Twentieth International Joint Conference on Artificial Intelligence (IJCAI)*. Jan 2007.
- M. Olsen and H. Siegelmann. "Artificial Death for Attaining System Longevity." *Proceedings of the 50th Anniversary Summit of Artificial Intelligence*. pp. 217-218. July 2006.
- D. Guo, E.E. Santos, L. Fraser, M. Olsen, "A Light-Weight Message Transport Framework for Multi-Agent based Simulation." *IASTED International Conference on Parallel and Distributed Computing and Systems 2005*.

## **Additional Conference Presentations**

- M. Olsen, H. Siegelmann. HADES – Utilizing Artificial Death for Fault Tolerance. *Grace Hopper Celebration of Women (GHC)*. Oct 2008. Poster, ACM Student Research Competition.
- M. Olsen, K. Harrington, and H. Siegelmann. Utilizing Emotion in Strategic Real-Time Artificial Intelligence. *Third North East Student Colloquium on Artificial Intelligence (NESCAI)*. May 2008. Poster.
- M. Olsen, H. Siegelmann. A Multi-Agent System that Attains Longevity via Death. *Second North East Student Colloquium on Artificial Intelligence (NESCAI)*. April 2007. Poster.
- M. Olsen, L. Fraser, D. Guo, E.E. Santos. Finding the Connection Between Networking and Cellular Communication. *Virginia Tech Undergraduate Research Computer Science Spring Symposium*. April 2005. Poster.
- M. Olsen, L. Fraser, D. Guo, E.E. Santos. Finding the Connection Between Networking and Cellular Communication. *Virginia Tech Undergraduate Research Symposium*. April 2005. Talk.