SIMING LIU

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EDUCATION

Ph.D.	**University of Nevada, Reno**	Computer Science and Engineering	May, 2015
Master's	**Hunan University, China**	Software Engineering	May, 2005
Bachelor's	**Hunan University, China**	Telecommunication Engineering	May, 2002

TEACHING COURSES

UNR-CSE	CPE 201	Digital Design	133 students & 7 labs	Fall, 2016
UNR-CSE	CS 105	Introduction to Computing	119 students & 4 labs	Fall 2016
UNR-CSE	CS 219	Computer Organization	78 students	Spring, 2016

PROFESSIONAL AND RESEARCH EXPERIENCE

University of Nevada, Reno — July 2015 - Now

Research Assistant Professor — *Evolutionary Computing Systems Laboratory*

· Research on evolving micro behaviors in RTS games.
· Teaching undergraduate courses including CS105, CS219, and CPE201

University of Nevada, Reno — August 2012 - May 2015

Research Assistant — *Evolutionary Computing Systems Laboratory*

· Machine learning and computational intelligence, with a focus on applications in computer games.

Nokia Siemens Networks, China — January 2008 - Oct 2009

Software Engineer — *OSS Core Platform*

· Research and develop a Network Management System, called NetAct.

Huawei Technologies — May 2005 - December 2007

Software Engineer — *Center Platform Department*

· Research and develop a Network and Management System.

GRANTS RECEIVED

1. **University Transportation Center (UTC)**, "Simulation Training and Control System for Bridge Inspection", Amount: $37,320, 2016-2017. (Role: Co-Principle Investigator)

2. **BioClarityAnalytics**, a local startup company, "Distributed Health Tracking System", Amount: $10,000, 2015. (Role: Senior Personnel)

3. **Traffic Signal Optimization**, UNR, "Signal Timing Optimization for an Intelligent Traffic System", Amount: $33,421.50, 2015-2016. (Role: Senior Personnel)

4. **RenoRescueSim**, UNR, "Optimize Human and Robot Resources in a Disaster Scenario", Amount: $6,447.50, 2015-2016. (Role: Senior Personnel)

DISSERTATION

Title: Evolving Effective Micro Behaviors in RTS Games
Advisor: Dr. Sushil J. Louis

PUBLICATIONS

Journal

1. **S. Liu**; S. Louis; C. Ballinger, "Evolving Effective Micro Behaviors in Real-Time Strategy Games," in IEEE Transactions on Computational Intelligence and AI in Games , vol.PP, no.99, pp.1-1, doi: 10.1109/TCIAIG.2016.2544844, Inpact Factor: 1

2. C. Ballinger; S. Louis; **S. Liu**, "Coevolving Robust Build-Order Iterative Lists for Real-Time Strategy Games," in IEEE Transactions on Computational Intelligence and AI in Games , vol.PP, no.99, pp.1-1 doi: 10.1109/TCIAIG.2016.2544817, Inpact Factor: 1

Conference

1. **Liu, S.**; Louis, S.; Jiang, T.; Wu, R. "Increasing Physics Realism When Evolving Micro Behaviors for 3D RTS Games", 2017 IEEE Congress on Evolutionary Computation (CEC), Donostia - San Sebastin, Spain, 2017.

2. Wu, R.; Painumkal, J.; Volk, J.; **Liu, S.**; Louis, S.; Tyler, S.; Dascalu, S.; Harris, F.; "Parameter Estimation of Nonlinear Nitrate Prediction Model Using Genetic Algorithm", 2017 IEEE Congress on Evolutionary Computation (CEC), Donostia - San Sebastin, Spain, 2017.

3. **Liu, S.**; Louis, S.; Griffin, N. "Comparing Two Representations for Evolving Micro in 3D RTS Games", 2016 IEEE International Conference on Tools with Artificial Intelligence (ICTAI), San Jose, 2016, pp. 722-729. doi: 10.1109/ICTAI.2016.111, Acceptance Rate: 30%. Presented.

4. Dewitt, T.; Louis,; S. **Liu, S.** "Evolving Micro for 3D Real-Time Strategy Games", 2016 IEEE Conference on Computational Intelligence in Games (CIG), Santorini, 2016.

5. **S. Liu**, S. Sengupta and S. J. Louis, "Evolving defensive strategies against iterated induction attacks in cognitive radio networks," 2015 IEEE Congress on Evolutionary Computation (CEC), Sendai, 2015, pp. 3109-3115. doi: 10.1109/CEC.2015.7257277, Acceptance Rate: 64%.

6. **Liu, S.**; Louis, S.; Ballinger, C. "Evolving effective micro behaviors in RTS game," 2014 IEEE Conference on Computational Intelligence and Games, Dortmund, 2014, pp. 1-8. doi: 10.1109/CIG.2014.6932904

7. **Liu, S.**; Louis, S.; Nicolescu, M. "Using CIGAR for finding effective group behaviors in RTS game," 2013 IEEE Conference on Computational Inteligence in Games (CIG), Niagara Falls, ON, 2013, pp. 1-8. doi: 10.1109/CIG.2013.6633652

8. **Liu, S.**; Louis, S; Nicolescu, M. "Comparing heuristic search methods for finding effective group behaviors in RTS game," 2013 IEEE Congress on Evolutionary Computation, Cancun, 2013, pp. 1371-1378. doi: 10.1109/CEC.2013.6557724

9. **Liu, S.**; Louis, S.; Ballinger, C. "Identifying Players and Predicting Actions from RTS Game Replays", 28th International Conference on Computer Applications in Industry and Engineering (CAINE), 2015.

10. **Liu, S.**; Ballinger, C.; Louis, S.; "Player Identification from RTS Game Replays", 28th International Conference on Computers and their Applications (CATA), 2013.