Timothy M. Shea

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EDUCATION

In Progress **Ph.D. Cognitive & Information Sciences**, University of California, Merced
Area: Computational Cognitive Neuroscience

2014 **B.S. Computer Science** (Magna cum Laude), California State University, Sacramento
Culminating Project: Wings - An Agent-Based Artificial Intelligence Toolkit for Game Developers

EXPERIENCE

2014 - Present **Computational Cognitive Modeling Research,** UC Merced

- Collaborated with small teams of diverse skill sets to design and develop simulation tools using **java**, **C++**, and **matlab**
- Developed visualization and analysis frameworks using **python**, **R**, and **matlab**
- Planned computational experiments
- Collected and analyzed heterogeneous datasets
- Communicate technical results to broad audiences
- Key topics: **decision making**, **speech**, and **learning**.

2016 - Present **Behavioral Research in Virtual Reality,** UC Merced

- With collaborators, planned and implemented a series of movement studies using **virtual reality** systems
- **Recruited, trained, and supervised** four research assistants
- Collected and analyzed multimodal behavioral data
- Key topics: relationships between learning systems in natural behavior

2014 - Present **Teaching,** UC Merced

- Teaching Fellow: Developed a syllabus and course content, delivered lectures, assessed progress, and created assignments and lab activities.
- Teaching Assistant: Assisted five courses in cognitive science, lead discussions and lab sections, met with students to provide feedback and mentorship.

2011 - 2014 **Information Systems Technician,** State Water Resources Control Board

- Developed and maintained database web applications using **SQL** and **PHP** to support environmental remediation programs

SKILLS

- ➔ C++, C#, Java, Python, D, GLSL/HLSL, HTML, CSS, Javascript, PHP, Matlab, SQL, R
- ➔ IPC, Multithreading, OpenGl, CUDA (limited), Unreal Engine, Cluster Computing (Sun Grid Engine), TensorFlow, Keras
- ➔ Profiling (VS, Java Mission Control), Unit Testing (JUnit, GoogleTest, VS), Version Control (Hg, Git, Svn), Issue Tracking (Mantis), Visual Studio, Eclipse, PyCharm, Windows, Unix, Oracle, MySQL
- ➔ Arduino, Phidgets, Roomba SCI, V1KU neuromorphic camera, Robot Operating System, Gazebo
- ➔ Automata, Expert Systems, Random Search, Planners, Genetic Algorithms, Neural Networks, Deep Neural Networks
- ➔ Simulation Methods, Acceleration Methods, Statistical Data Analysis, Experimental Design, Statistical Inference
- ➔ Design Patterns, SDLC, Project Management, Requirements Analysis, Technical Communication, Design Models (Structural, UML), Formal Documentation (SRS, SDD, STS)

AWARDS AND ACTIVITIES

- Taught Virtual Reality Research Workshop (2017)
- Organized CogSci Coffee Co-Op (2017)
- Attended Telluride Neuromorphic Cognition Workshop (2016)
- Organized “An Evening of Free Will” Discussion Panel (2014)
- California Space Grant Consortium Scholarship for Research (*March 2013*)
- Chevron Computer Science Scholarship (*January 2013*)
- Cereal Hack II Intel Grand Prize and People’s Choice Award (*HackerLab Sacramento, November 10, 2012*)
- Marie Perino Business Scholarship (*2012*)