Creighton Glasscock



About

Ph.D. student developing efficient AI decision-making agents at the intersection of reinforcement learning and large language models.

- Expertise: Deep RL, LLMs, Neural Network Design
- Frameworks: PyTorch, Gymnasium, NumPy, VLLM
- Tools: Git, Bash, Wandb, Matplotlib, HuggingFace

EDUCATION

University of California, Santa Cruz

Santa Cruz, CA 2024-Present

Ph.D. Student in Computer Science and Engineering, GPA: 4.00/4.00 Advised by Dr. Leilani Gilpin

2024-1 Tesem

University of Michigan

Ann Arbor, MI

M.S. in Computer Science and Engineering, GPA: 3.85/4.00 Advised by Dr. Joyce Chai and Dr. Honglak Lee

2022 - 2024

Kansas State University

Manhattan, KS

B.S. with Honors in Computer Science and Mathematics, Minor in Physics, Summa Cum Laude Advised by Dr. Bill Hsu

2018-2022

PUBLICATIONS

- 1. C. Glasscock, L. Gilpin, "Reward-Guided Online Pruning for LLM Agents", In preparation for ICML 2026
- 2. L. Logeswaran, J. Kim, S. Sohn, C. Glasscock, H. Lee, "Scaling Web Agent Training through Automatic Data Generation and Fine-grained Evaluation", Conference on Language Modeling (COLM), 2025
- 3. N. Nafi, C. Glasscock, W. Hsu, "Attention-Based Partial Decoupling of Policy and Value in Reinforcement Learning", NeurIPS Workshop on Deep Reinforcement Learning, 2021

Research Positions

University of California, Santa Cruz

Santa Cruz, CA

Graduate Student Researcher, AIEA Lab — Advised by Dr. Leilani Gilpin

2025-Present

- Developing novel RL-inspired pruning methods for efficient LLM agent deployment in MDP environments
- Designed reward-guided online pruning objective to leverage environmental feedback for LLM compression
- Built research infrastructure for training and evaluation across custom Gymnasium environments

LG AI Research Center

Ann Arbor, MI

AI Research Intern, Actionable AI Team — Supervised by Dr. Honglak Lee

May 2024–March 2025

- Co-author: Scaling Web Agent Training through Fine-grained Evaluation, featured in COLM 2025
- Managed pipeline to train state-of-the-art, efficient LLM agents for autonomous web navigation
- Proposed and implemented novel fine-grained LLM auto-evaluation method to guide model distillation
- Collaborated in a team-based environment to design large-scale experiments and data generation

Reward-Guided Online Pruning for LLM Agents

2025

Dr. Leilani Gilpin, Artificial Intelligence Explainability and Accountability (AIEA) Lab, UC Santa Cruz

- Novel RL-inspired pruning method to leverage environmental reward signals for efficient agent compression
- Leverages REINFORCE-style reward-weighted gradient-based importance scoring in sequential decision tasks
- Demonstrates improved pruning stability over baseline methods on procedurally generated MDP benchmarks

Multi-Tier GPT-4 Teacher for Sample-Efficient Offline Reinforcement Learning

2023

Dr. Joyce Chai, Situated Language and Embodied Dialogue (SLED) Lab, University of Michigan

- Proposed LLM agent with multi-tier goal abstraction for zero-shot solution of Minigrid benchmark tasks
- Novel goal-based data augmentation to generate quality trajectories for efficient offline training of RL agent

Fully Online Decision Transformer for Reinforcement Learning

2022

Dr. Joyce Chai, Situated Language and Embodied Dialogue (SLED) Lab, University of Michigan

- Proposed novel method for extending decision transformer to online setting without need for offline pre-training
- Report featured on SLED lab website as top course project

Attention-Based Partial Decoupling of Policy and Value in Reinforcement Learning

2021

Dr. Bill Hsu, Knowledge Discovery in Databases (KDD) Lab, Kansas State University

- Second author; featured in NeurIPS 2021 Workshop on Deep Reinforcement Learning
- Proposed novel partially decoupled network architecture to combine strengths of shared and separate networks
- By leveraging attention to generalize from fewer samples, surpassed state-of-the-art in Procgen benchmark

TEACHING POSITIONS

Graduate Teaching Assistant, Department of Computer Science, UC Santa Cruz

Fall 2023-Present

- As lead TA, direct weekly TA meetings, coordinate homework grading, and create answer keys
- Lead weekly 40-student discussion section, host in-person office hours, proctor exams
- Design discussion section materials from scratch to be used by course staff

Graduate Student Instructor, Department of Computer Science, University of Michigan Winter 202

- Aided in development of new course, Introduction to the Social Consequences of Computing
- Designed all lab and homework assignments for the course from scratch
- Led weekly 50-student lab section, hosted in-person office hours, and graded student assignments

Undergraduate Lab Coordinator, Department of Physics, Kansas State University

Spring 2022

- Promoted to TA leadership position due to six-semester teaching experience within the department
- Set up equipment for each week's labs; gave demonstrations of weekly lab assignments to all course TAs

Teaching Assistant, Department of Physics, Kansas State University

2018 - 2022

- Led a 40-student lab section each semester, delivered lectures, managed lab safety, and graded lab reports
- Closely engaged with students during lab period, answering questions and monitoring experiments

Teaching Assistant, Department of Computer Science, Kansas State University

2021 - 2022

- As TA for computer architecture course, met with students, proctored exams, and graded coursework
- Worked with professor to create equitable examination and grading procedures for COVID
- Shadowed graduate TAs of graduate-level AI course for a semester; assisted with homework design

SOFTWARE DEVELOPMENT POSITIONS

Amazon Seattle, WA

Software Engineer Intern, Design Inspector Team

Summer 2021

- Designed an easily searchable database of security dependency diagrams with Elasticsearch in AWS
- Worked closely with internal customers across Amazon to inform design decisions

Garmin International Kansas City, KS

Software Engineering Intern, Aviation Displays Team

May 2020-April 2021

- Designed front-end for next generation of Garmin digital avionics systems
- Streamlined development by creating novel diagnostics tools to drive performance analysis of avionics systems

SCHOLARSHIPS AND AWARDS

• Putnam Scholarship 2018–2022

Four-year merit-based scholarship awarded to less than 3% of incoming Kansas State students

• Computer Science Scholars Program 2018–2022

Honors cohort consisting of top 10% Kansas State CS students; accelerated coursework and four-year scholarship

• University Honors Program 2018–2022

University-wide honors program with advanced coursework, capstone research project, and scholarship

Extracurricular Activities

Student Senator, Kansas State University

2018 - 2022

- Won three years of competitive college-wide elections; authored legislation aiding underrepresented students
- Caucus Leader for the College of Engineering; led meetings and organized college-level outreach
- Vice-chair of Diversity, Equity and Inclusion Committee; led funding for diverse student organizations

Collegiate Outreach Advisor, Usha Reddi U.S. Senate Campaign

2019 - 2020

- Played a key advisory role in primary campaign for U.S. Senate seat from Kansas
- Participated in bi-weekly strategy meetings with the candidate and core campaign staff
- Provided critical insights that led to increased campaign engagement among university students