

Blake Moody

Swampscott, MA, USA | blake@mpsyach.org | www.moody.mx

Seeking Full-time Opportunities

Education

UMass Boston, CS BS, Japanese (Minor), GPA: 3.9

Boston, MA (5.2026)

Publications

Retrofitting Games as an Experimental Testbed for Reinforcement Learning (working title) ([Repo](#))

Boston, MA (9.2025 - Present)

- Reverse-engineered internal game files for Mario Kart DS and used dynamic memory analysis and speedrun data to train NEAT and deep Q-learning models to play as well as top speedrunners
- Designed a generalized RL testbed comparable to OpenAI's Gym framework.
- Invited to give a guest lecture for CS461 - Computer Games Programming

Machine Learning for N-Dimensional Spatial Reasoning Tasks on the Web ([Repo](#)) ([Journal](#))

Boston, MA (2025)

Frontiers in Data Visualization (In Review)

- Designed a WebGL-TensorflowJS unified GPU memory pipeline for 36x speedup in ML data visualization during inference and training
- Reduced compute cost by developing a spatially equivariant neural network

Experience

Teaching Assistant - CS460 (Computer Graphics)

Boston, MA (9.2025 - Present)

- Assisted with grading and designing course materials
- Provided students with assistance on assignments

Software Engineer Intern: Investment Data

Transformation and Migration

Boston, MA (1.2025 - 8.2025)

- Focused on developing technologies to migrate existing on-site Oracle databases to cloud-based database solutions such as [Snowflake](#) and [Azure Data Lake Storage](#) (ADLS)
- Designed and tested novel solutions to parsing and transforming raw client/investor data for sales teams
- Participated in bi-weekly SCRUM sprints, working alongside a 100+ person development team

AI/LLM Research Fellow (mpsyach.org)

Boston, MA (9.2024 - Present)

- Researching contour tokenization and representing geometry in UNet models
- PI: Professor Daniel Haehn

Research Fellow (Virtual Characters Lab)

Boston, MA (11.2025 - Present)

- Collaborating with Professor Funda Babur on human-demonstrated AI training of video game speedrunning

Projects

AthletIQ

New York, NY (6.2025 - Present)

- Won \$5,000 2nd place prize for a Meta-hosted hackathon (300+ contestants)
- An AI sports coach that takes in individuals' game footage and uses traditional computer vision and the long-context multimodal Llama 4 API to segment full game footage

Shakespeare Custom Language Model ([Repo](#))

Boston, MA (9.2024 - 11.2024)

- Built a [generative pre-trained transformer](#) (GPT) language model from the ground up using purely Pytorch
- Trained on large corpus of Shakespeare text to mimic old-style dialogue

Campus Involvement

IT CIO Search Committee (9.2025), IT Executive Council (9.2024), CS Department Council (6.2022), CS Club Leader/ Hackathon Organizer (2.2022)