

# Blake Moody

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*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 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](http://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)
- AI sports coach that intakes 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)