Blake Moody

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Seeking Full-time Opportunities

Education

UMass Boston, CS BS, Japanese (Minor), GPA: 3.93 **Boston, MA (5.2026)**

Technical Skills

- **Programming Languages:** Mojo, Python, JavaScript, TypeScript, Java, C, Rust, SQL
- **Frameworks/Libraries:** NextJS, NumPy, PyTorch, Langchain, WebGL, OpenCV
- **Models:** GPT, BERT, LLaMa 3.1/4, Mamba, YOLO, SAM
- **Certifications:** CompTIA ITF+, OSHA 10-Hour, MTA 98-381, MTA 98-366, MTA 98-349, MTA 98-383

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.

Machine Learning for N-Dimensional Spatial Reasoning Tasks on the Web (Repo) (Journal) **Boston, MA (Pending)**

Frontiers in Data Visualization

- 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

Software Engineer Intern: Investment Data Transformation and Migration **Boston, MA (1.2025 - Present)**

- 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 (mpsych.org) **Boston, MA (9.2024 - Present)**

- Researching contour tokenization and representing geometry in UNet models

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 multimodel 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)