Tarik Hasic

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Education

Massachusetts Institute of Technology, Bachelor of Science / Computer Science   05/2026

Relevant Coursework: CS in Python, Computational Thinking & Data Science, Fundamentals of Programming, Software Construction, Computation Structures, OS Engineering, System Design, Distributed Systems, Algorithms I & II, Discrete Math, Linear Algebra, Probability, Machine Learning

Work Experience

Bloomberg, Software Engineering Intern   06/2025 – 08/2025
New York City, NY
- Architected and implemented high-performance BatchConsumer API for C++ Kafka library.
- Increased throughput 500x compared to previous offerings (9 msg/s to 5000+ msg/s).
- Ensured system reliability and data consistency with strong ordering guarantees despite unpredictable data schemas and system failures.

New York Structural Biology Center, Machine Learning Intern   01/2025 – 02/2025
New York City, NY
- Built and deployed a scalable FastAPI/TorchServe API to host Topaz (cryo-EM particle-picking) machine learning models.
- Optimized model serving for real-time inference and training, integrated logging/monitoring, and resource management.

Tailbox, Machine Learning Intern   06/2024 – 08/2024
Cambridge, MA
- Trained custom embedding and cross-encoder models that improved RAG pipeline results by 14% and reduced latency 50-fold compared to OpenAI models.
- Fine-tuned Qwen2-1.5B SLM to convert HTML text to structured database entries to reduce reliance on private models and save $20/day per city; optimized inference for 19-fold speedup.
- Wrote a robust Requests & Selenium scraper that collects tourist events found online; collected dataset of 18k+ query:activity pairs; used Google OCR to cut costs by 38.8% and cut latency by 27.5%.

Amazon, Software Engineering Intern   01/2024 – 02/2024
Seattle, WA
- Developed Express.js API to interface custom-trained LLM models and the AlexaEmulator.
- Enabled simulating customer interactions with specific devices through serial numbers/customer IDs.
- Extended project to use Microsoft AutoGen to allow for chain-of-thought reasoning and tool usage.

MIT CSAIL, Machine Learning Researcher   12/2022 – 12/2023
Cambridge, MA
- Co-authored a research paper ⧉ ; accepted by ACM UIST Conference.
- Implemented the software ⧉ as a plugin on Blender; backend runs CLIP on Django framework.
- Added 1000+ annotated 3D-model datapoints autonomously using Selenium.
- Created website for model using React, Node.js, and Django; provided model-uploading, re-meshing, and stylization in-browser.

Relari, Software Engineering Intern   07/2023 – 09/2023
Cambridge, MA
- Implemented REST API using Express.js to dynamically generate tailored company slides by interfacing a proprietary LLM (trained on users' documents) with a PostgreSQL database.
- Engineered document processing pipeline, enabling LLM to extract, categorize, and synthesize key financial data from diverse document formats.

Leadership

Executive Webmaster, MIT Muslim Student Association

Received MIT's Albert G. Hill Award for community service. Responsible for developing and managing the MSA's online presence, ensuring effective communication and engagement with members and the wider community, including through our website (React, Tailwind, Django).

Lab Assistant, Fundamentals of Programming (6.101)

Topics include graph search, recursion, dynamic programming, and object-oriented programming (Python).

Skills

Programming Languages	**Frameworks/Developer Tools:**	**Languages:**
C++, C, C#, Python, Golang, Assembly, HTML/CSS, Typescript	PyTorch, GTest, GDB, PostgreSQL, React, Django, Node.js, .NET, AWS, GCP, Docker	English, Spanish, BCS, Arabic