

Tarik Hasic

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Education

Massachusetts Institute of Technology, Bachelor of Science / Computer Science

05/2026

GPA: 4.8/5.0

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

Professional Experience

Machine Learning Intern, Tailbox

06/2024 – Present

Played a pivotal role in the development of foundational machine learning models to help tourists gain a personalized travel experience in any city.

- 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 AWS EC2 scraper that collects Boston tourist events found on Instagram; collected dataset of 18k+ query:activity pairs; used Google OCR to cut costs by 38.8% and cut latency by 27.5%.

Cambridge, MA

Design Technologist Intern, Amazon

01/2024 – 02/2024

Conceptualized, designed, and implemented an API establishing communication between large language models and the Amazon Alexa infrastructure. LLMs demonstrated chain-of-thought reasoning to utilize Alexa as a tool for solving complex tasks.

- Developed Express.js API to interface custom-trained LLM models and the AlexaEmulator, capable of simulating interactions with specific devices through serial numbers/customer IDs.
- Collaborated with cross-functional teams to gather and synthesize diverse requirements, implementing solutions that aligned with stakeholder needs.
- Presented project to DDG team to enable future use for a larger LLM project slated for presentation at the upcoming 'Demo Crawl' event in Spring 2024.

Seattle, WA

Machine Learning Researcher, MIT Computer Science and Artificial Intelligence Laboratory

12/2022 – 12/2023

Co-authored a research paper [\[1\]](#) on developing software to modify 3D-printable objects given user instructions, while preserving the objects' functionality. Paper accepted by ACM UIST Conference.

- Implemented the software [\[2\]](#) as a plugin on Blender; backend hosted on AWS EC2 running CLIP on Django framework.
- Automated collection of 3D-model datapoints using Selenium; added 1000+ annotated data points to the model training database.
- Created web UI for model using React, Node.js, and Django; streamlined user experience by providing model-uploading, re-meshing, and stylization on the web.

Cambridge, MA

Software Engineering Intern, Relari

07/2023 – 09/2023

Designed and developed an LLM assistant that analyzes financial documents to generate relevant insights and media for financial professionals.

- Implemented REST API using Express.js, integrating the proprietary LLM (trained on user's documents) with a PostgreSQL database to dynamically generate tailored slides.
- Engineered document processing pipeline using NLP, enabling LLM to extract, categorize, and synthesize key financial data from diverse document formats for incorporation with dynamic slide generation.

Cambridge, MA

Software Engineering Intern, Bausch Advanced Technologies

06/2021 – 08/2023

Collaborated with a team to develop an app optimizing workflow efficiency across multiple departments. Leveraged ASP.NET framework (XAML, C#, PostgreSQL)

- Utilized xTuple API and company database to display part availability and work/purchase order retrieval, dramatically reducing human labor time.
- Implemented SolidWorks 3D viewer directly in-app; includes feature tree, missing parts lookup, and printing.

Clinton, CT

Leadership

Executive Webmaster, MIT Muslim Student Association

Responsible for managing and maintaining the MSA's online presence, ensuring effective communication and engagement with members and the wider community through our website (React, Tailwind, Django), mailing lists, online forms, and other sources.

Lab Assistant, Fundamentals of Programming (6.101)

Responsible for debugging students' code and administering checkoffs to assess their understanding of programming concepts, contributing to a smooth learning experience. Topics include graph search, recursion, dynamic programming, and OOP.

Skills

Programming Languages

Python, C, C#, Assembly, HTML/CSS, JavaScript, XAML

Frameworks/Developer Tools:

PyTorch, NLTK, scikit-learn, PostgreSQL, React, Django, Node.js, .NET, AWS, GCP

Languages:

English, Spanish, BCS, Arabic