UNYIMEABASI C. USUA

(281) -782-8071 | Cambridge, MA

linkedin.com/in/unyimeusua | unyime@mit.edu | https://github.com/unyimeu

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA

May 2027

Bachelor of Science, Artificial Intelligence and Decision Making, GPA: 4.6/5.0, Minor in Japanese

Relevant Coursework: Data Science, Machine Learning, Data Structures and Algorithms, Statistics, Web Design

SKILLS

Programing Languages: Python, Julia, Java, C++, MATLAB, Simulink, HTML, CSS, Javascript, Arduino, R

Frameworks/Technologies: SQL, Colab, Microsoft Azure Cloud Services, Microsoft Office, APIs, Visual Studio, Tensorflow, Pytorch, SciKit Learn, OpenCV, Git, Conda, Pandas, Numpy, AI/ML, Linux

EXPERIENCE

Collinear Inc, Tokyo, JP

June 2025 - August 2025

Software Engineering Intern

• Incoming Software Engineering Intern @ Collinear Inc; LLM team

MIT Gupta Group, Computer Science and AI Laboratory, Cambridge, MA

August 2024 - PRESENT

Undergraduate Researcher

- Developed a privacy-preserving system combining LLMs, retrieval-augmented generation, and differential privacy to improve customer churn prediction across multiple industries.
- Engineered scalable pipelines for synthetic data generation, semantic retrieval, and model evaluation using Python, PyTorch, and private LLMs.
- Achieved up to 30% performance gains over traditional models by integrating privacy-aware learning and retrieval-based inference.

Chevron, Houston, TX

June 2024 - August 2024

Software Engineering Intern

- Built a CI/CD workflow for deploying ML systems. Developed data distributed Convolutional Neural Network training and inference tasks across multiple GPUs with Julia/Python utilizing Azure Cloud ML
- Significantly reduced training costs/time (20x), delivered a new Machine Learning AVA inversion tool in a cloud-native platform. High Performance Computing.
- Designed frontend web application to seamlessly train, and visualize model predictions using
- Python, Julia, Services, Clients, MLOPS, VM Nodes, Docker, Azure Cloud, Tensorflow, Linux, Storage

PROJECTS

Travel and Chat

- Developed a full-stack group chat application in Vue.js using Graffiti's decentralized API, featuring real-time messaging, profile editing, group creation, reaction support, and LLM based features.
- Implemented schema-based validation and modular component architecture to enable scalable messaging.

Python Library for XML-based Image Augmentation for Computer Vision

 Developed algorithms to apply diverse augmentations to images with Pascal VOC XML annotations, ensuring consistency between image transformations and bounding box labels. Optimized dataset preparation for segmentation tasks using OpenCV/ElementTree. (Python, OpenCV, Numpy, Pandas, Git, Pypi, Containers, XML)

LEADERSHIP & COMMUNITY INVOLVEMENT

MIT Wind, Cambridge, MA

September 2023 - Present

Build Team Lead

• Developing the electrical system and software of a model wind turbine for the Collegiate Wind Competition. Simulink/Matlab, Arduino, Python generators and controls. Manage team's codebase. (C++, MATLAB, Python)

MIT National Society of Black Engineers (NSBE), Cambridge, MA

January 2024 - Present

• Involved in MIT's community of Black Engineers. Participating in community events.

HONORS AND AWARDS

- 2024 1 of 4 Undergraduates Selected to represent MIT EECS at the 2024 Grace Hopper Tech Conference
- 2024 Dean A. Horn Award for Undergraduate Research (\$1000)
- 2024 MIT Biotech Group Poster Session (Best Class of 2027 Poster)