

# Maura Kelleher

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## EDUCATION

### Massachusetts Institute of Technology (MIT)

*Candidate for Bachelors in Computer Science, Minor in Business Analytics*

*Candidate for Masters in Computer Science - Concentrating in Machine Learning and AI*

Cambridge, MA

June 2025

December 2025

- GPA: 4.9/5.0

- Coursework: Advances in Computer Vision, Quantitative Methods for Natural Language Processing, Software Construction, Machine Learning, Design and Analysis of Algorithms, Optimization Methods, Programming in Python, Computational Thinking and Data Science, Math for Computer Science, Linear Algebra and Optimization, C and Assembly, Computation Structures, Robotic Manipulation, Physics I, Physics II, Multivariable Calculus

### Los Altos High School

Los Altos, CA

- GPA: 4.67/4.0

2017 - 2021

## EXPERIENCE

### Niantic - Augmented Reality Mapping and World Perception

Bellevue, WA

#### *Software Engineering Intern - Computer Vision*

May - August 2024

- Trained novel depth estimation models on simulated and real world data for long-range reconstruction of 3D scenes
- Conducted varied trials experimenting with different architectures and parameters, leading to improved mesh rendering

### MIT Media Lab - Fluid Interfaces Group

Cambridge, MA

#### *Undergraduate Student Researcher*

February - May 2024

- Collaborated with researchers to conduct a study investigating the effects of rhythmic vibration from smartwatches on memory, slow wave sleep activity, sleep quality, cognition, and mood
- Developed a full-stack MERN app allowing study participants to complete a customized memory task from home

### BiomX - Bioinformatics Team

Ness Ziona, Israel

#### *Data Science and Machine Learning Intern*

May - August 2023

- Designed and developed robust Python-SQL pipelines to facilitate seamless retrieval and processing of data from large-scale databases, enabling the development of sophisticated models utilizing the extracted data
- Developed a locally-hosted, customized Chat-GPT-like interface allowing employees to analyze and understand proprietary company data - boosting productivity by streamlining internal processes without exposing sensitive data

### MIT Computer Science & Artificial Intelligence Laboratory - MIT App Inventor

Cambridge, MA

#### *Undergraduate Student Researcher*

September 2021- December 2023

- Built an end-to-end system that allows users to build complex apps from a natural language description
- Collaborated with a team of 3 researchers to conduct qualitative research and thematic analysis to uncover patterns in individuals' attitudes towards conversational AI, culminating in two published research papers
- Lead 40 participants in 3 days of conversational AI programming sessions and workshops in the United Arab Emirates

## PUBLICATIONS

- J. Van Brummelen, M. C. Tian, **M. Kelleher**, N. H. Nguyen. "Learning Affects Trust: Design Recommendations and Concepts for Teaching Children---and Nearly Anyone---about Conversational Agents". *Educational Advances in Artificial Intelligence (EAAI-23)*
- J. Van Brummelen, **M. Kelleher**, M. C. Tian, N. H. Nguyen. (in press). "What Do Children and Parents Want and Perceive in Conversational Agents? Towards Transparent, Trustworthy, Democratized Agents". *Association for Computing Machinery - Interaction Design and Children (IDC-23)*

## PROJECTS AND ACTIVITIES

### MIT-Chile Global Teaching Lab Program

Santiago, Chile

#### *Teacher*

January 2024

- Developed an Introduction to Python curriculum. Successfully instructed a diverse class of 20 high school students, guiding them through the course and providing critical one-on-one support

### MIT AI Alignment

Cambridge, MA (Remote)

#### *AI Safety Fellow*

June 2023 - August 2023

- Conducted comprehensive literature reviews on AGI, deception, reward misspecification in reinforcement learning, goal misgeneralization, scalable oversight - actively engaging in insightful discussions on the development of safe AI

## SKILLS AND INTERESTS

**Technical:** Proficient in Python, Java, C, Javascript, HTML, React, CSS, SQL, PyTorch; VS Code, GitHub, LaTeX

**Interests:** Sports Analytics, Sleep & Exercise Wearables, Technical Consulting, Teaching, Wakeboarding, Running, Orcas