

Eric Hsu

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Education

2022 - 2023 **Master of Science in Computer Science (Graduated: Dec 2023)**

University of Massachusetts, Amherst

2016 - 2020 **Bachelor of Science in Computer Science, Minor in Mathematics (Graduated: May 2020)**

University of Massachusetts Amherst

- **Awards:** Dean's list (Fall 2016, Fall 2019, Spring 2020)

Relevant Skills

Technical Skills:

Python; Java; C++; JS/TS; SQL Databases; Git; Unit Testing; React; Node.js; Docker; Unix/Linux;

Related Skills:

Agile concepts; Software development; AI/ML; Algorithm analysis; Data analysis; OOP; Fast learner; Self-starter;

Experience/Projects

DCTClock & MicroTasks Drawing App (*SwiftUI, PencilKit*)

- Drawing app that collects metadata from the Apple Pencil via the Pencilkit library and administers the DCT Clock Tests and a series of micro tasks to dementia patients.

EarlyScreen (*Unity, C#, SQL, SQLite, Flask, Docker, OpenFace*)

- Using Unity to port E-prime to stand-alone application for remote data collect for AI model to predict early signs of disabilities in children based on visual and touch data from simple frustration game.

Penny-Pinching for Privacy: The Possibilities of Parsimonious Personalization (*Python, Sklearn, NLP, IR*)

- Experimental attempt to diversify retrieval results from an Okapi BM-25 model by performing redundant document removal on personal data corpus for personalized language model tasks.

EleNa: Elevation Based Navigation (*Node.js, CSS/HTML, React, Python*)

- Web-based application that gives best route based on whether a user desires to maximize or minimize elevation gain while also limiting total distance of route based on a percentage of the shortest route.

Music Genre Classifier (*Python, NLP, Google Colab, Sklearn, Tensorflow, Pytorch*)

- Implemented Top-K, BERT, Bidirectional Hierarchical Attention, and CNN models for music genre classification via lyrics.

Intellectual Property Defense (*C#, Metasploit, Bash, Flask, Git, VMWare, Apache2, FTP*)

- Simulation of finding evidence of intellectual property theft by ex-employee via embedded PDF.

Additional Experience

07/2023 – 12/2023 **iOS Developer / Research Assistant**

University of Massachusetts Amherst

- Worked for MOSAIC Labs to collect data with our developed iOS application, that administers the DCT Clock test and a series of microtasks.

06/2022 - Present **Game Development Intern / Research Assistant**

University of Massachusetts Amherst

- Working for SEED Labs to port their data collection games from E-Prime to Unity for use on Windows and iOS devices for their EarlyScreen study as they transition to remote data collection.

06/2021 – 11/2021 **Student Intern**

MyConnect

- Worked with other interns and supervisors to develop a social platform for parents and relatives of those with special needs.