AIRI MATSUSHITA

EDUCATION

Tufts University

Bachelor of Science. Computer Science

Medford, MA

Expected May 2025

Minor: Mathematics, Music

GPA: 3.63 | Dean's List - Fall 2021, Spring 2022, Spring 2023

Completed Coursework: Algorithms, Data Structures, Machine Structure & Assembly

Language, Linear Algebra, Discrete Mathematics, Multivariable Calculus **Current Coursework:** Programming Languages, Computation Theory

EXPERIENCE

Tufts University, Department of Computer Science

Medford, MA

Teaching Assistant for Intro to Computer Science

Sept. 2022 - Present

- Supported 300+ students by holding office hours and leading weekly labs to reinforce new concepts, assisting with assignments, and explaining challenging topics
- Graded assignments and exams and provide feedback for each
- · Maintained open communication with faculty and TAs regarding course matters

KidzToPros Medford, MA

STEM Instructor July 2023 - Aug. 2023

- Designed a game design curriculum for 15 students to create adventure maps in Minecraft
- Guided 10 students in building robots using LEGO motors and sensors, and programming

MikiHouse Americas, Inc.

Mt. Vernon, NY

Product Description Translator

Jan. 2021 - Jan. 2023

- Translated descriptions of children's apparel from Japanese to English for MikiHouse Americas' online store applying creative writing to highlight each product's features
- Contributed to an overall increase of 300% of online sales over the two years

Tufts University, StAAR Center

Medford, MA

Japanese Tutor

Sept. 2022 - Dec. 2022

- Conducted one-on-one tutoring sessions for students who study Japanese
- Engaged with students to practice grammar and develop speaking skills

PROJECTS

JPMorgan Software Engineering Virtual Experience Program on Forage

July 2023

- Utilized the Perspective software to monitor stock prices and determine trading strategies
- Generated a live graph showing stock prices using Typescript, React, and Python RPN (um asm) May 2023
- Implemented a Reverse Polish Notation calculator using the Universal Machine Macro Assembler, a previously developed front end for user-friendly assembly language
- · Adapted a call stack, a value stack, and registers, and developed macros to efficiently carry out operations

UM Emulator (C) Mar. 2023

- Created a simple virtual machine that read in 32-bit instructions and carried out tasks accordingly
- Optimized task performance by an average of 1500% using clean, modular structure Dec. 2022 Gerp (C++)

• Developed a replication of the grep Linux utility to search for user-inputed words in a given directory containing numerous files using hashing for efficient data storage and search

SKILLS

Programming Languages

C++ С

Python X86 Assembly HTML/CSS

Bash/Shell

Software Packages

Linux (Ubuntu)

GDB

Latex (Overleaf)

QCacheGrind

VS Code, Atom

Tools

Microsoft Excel. PowerPoint, Word Google Docs, Slides, Spreadsheet Adobe Photoshop macOS Pages, Keynote Final Cut Pro

Spoken Languages

English (native) Japanese (native) French (intermediate)

ACTIVITIES

Tufts Symphony Piano Trio Japanese Culture Club

INTERESTS

Design Photography Travel Classical Music Cooking and Baking