AIRI MATSUSHITA

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EDUCATION

Tufts University **Medford, MA**
Bachelor of Science, Computer Science *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

JumboCode **Medford, MA**
Full-Stack Developer *Sept. 2023 – Present*
- Collaborating with a team of 14 to build an interactive submissions portal for SpeakOUT Boston using ReactJS, NextJS, Tailwind CSS, PostgreSQL, and Prisma

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 the online store
- Contributed to an overall increase of 300% of online sales over the two years

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

Arith (C) *Mar. 2023*
- Generated a lossy image compression/decompression program involving transforming pixel color space, packing/unpacking binary data, and using floating-point arithmetic
- Minimized data loss to an average of 2% for each image

SKILLS

Programming Languages
C
C++
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