AIRI MATSUSHITA

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EDUCATION

Tufts University — **Medford, MA**
Bachelor of Science, Computer Science — *Expected May 2025*
Minor: Mathematics, Music — *GPA: 3.65 | Dean's List*
Completed Coursework: *Algorithms, Data Structures, Programming Languages, Machine Structure & Assembly Language, Computation Theory, Linear Algebra, Discrete Mathematics, Multivariable Calculus*

DIS Copenhagen SP 2024 — **Copenhagen, Denmark**
Current Coursework: *Artificial Neural Networks + Deep Learning, Artificial Intelligence, Computer Graphics, Computational Analysis of Big Data, Danish Culture Through Music*

EXPERIENCE

JumboCode — **Medford, MA**
Full-Stack Developer — *Sept. 2023 – Present*
- Collaborating with a team of 14 to build an interactive web portal for SpeakOUT Boston
- Using Typescript, PostgreSQL, Prisma to create API routes for logistical parts of website

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 explaining challenging topics
- Led weekly labs to reinforce new concepts through visual representations
- Provided feedback and advice to students through grading assignments and exams
- Collaborated and kept 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*
- Analyzed the Perspective software to monitor stock prices and form trading strategies
- Generated a live graph showing stock prices using Typescript, React, and Python

Type Checker (SML) — Nov. 2023
- Developed a consistent type-checking system for the typed μScheme language
- Introduced a new type by implementing typing rules and proving functional correctness

RPN (um asm) — *May 2023*
- Created a Reverse Polish Notation calculator using the Universal Machine Macro Assembler, a previously developed front end for user-friendly assembly language
- Adapted a call/value stack and registers, and developed macros to carry out operations

UM Emulator (C) — *Mar. 2023*
- Designed a simple vm that read in 32-bit instructions and carried out tasks accordingly
- Optimized task performance by an average of 1500% using clean, modular structure

SKILLS

Programming Languages
C/C++
Python (NumPy, Pandas)
Typescript
Javascript (Node, React, Babylon)
HTML/CSS
X86 Assembly
Bash/Shell

Software Packages
Linux (Ubuntu)
GDB
Latex (Overleaf)
QCacheGrind
VS Code, Atom
Blender

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
Knitting + Crocheting
Travel
Classical Music