

YUMA TAKAHASHI

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[personal-website](#)

WORK EXPERIENCE

Outlier.ai

AI Trainer

Remote, USA

April 2024 - Present

- Tuned an AI chatbot by evaluating the quality of calls to API tools used to answer prompts
- Refined response capabilities to enhance the AI model's understanding across diverse contexts, spanning from open-ended inquiries to analytical challenges.

Redge, Inc

System Organization Specialist - Medical Devices

Remote, Japan

April 2024 - Present

- Enhanced system organization of hospital medical devices in use, under maintenance, or require inspection by developing tables queried from MySQL databases with Retool
- Streamlined device tracking, aiding clinical engineers in identifying devices that need attention

Staar Center

Intro to Computer Science Tutor

Tufts University, MA

Sep 2021 - May 2023

- Worked with students outside of lectures to clarify covered topics
- Provided support for students learning C++, Python, and Javascript by answering questions regarding homework, classwork, exams, and labs

SKILLS

Programming Languages: Python, C/C++, Javascript/Typescript, React Native, HTML, MATLAB, OCaml

Software/Libraries/OS: Linux, Git, flask, MySQL, numpy, pandas, matplotlib, scikit-learn, Makefile, Bootstrap, NodeJS, Express, EJS, RESTful API, Axios, MongoDB

Foreign Language: Native Japanese Bilingual and Biliterate

PROJECTS

CineRank

- Developed a cross-platform mobile application in a group of 3 using React Native and Expo, allowing users to rank movies based on preferences and share their rankings with friends
- Integrated an Express backend with Axios for API requests, stored all data in MySQL, and utilized Nx workspace to manage the codebase and streamline the development process efficiently
- Conducted user research and competitor analysis to assess potential interest and market trends

Life Log

- Developed a website that logs daily activities generating a breakdown of user's day
- Interacts with server via Flask, stores daily logs in MySQL, and uses JavaScript for frontend application

sPool Programming Language

- Created a general-purpose, statically-typed programming language using OCaml in a group of 4
- Incorporates concurrent programming via multithreading, and automatic memoization for dynamic programming, and functions as first-class citizens

LeetCode Replica

- Simulates the LeetCode website by comparing the output of a solution program with the user-generated program on multiple test cases for real-world problems
- Developed an automation script that performs unit or batch testing for all test cases

Arith

- Built a compressor for Pixmap images and a corresponding decompressor by packing and unpacking binary data in C and C++
- Achieved a root mean square difference of 2% between original and decompressed images

Universal Machine

- Built a 32-bit virtual machine emulator consisting of eight general-purpose registers and segmented memory written in C and C++
- Used profiling techniques to improve the runtime by over 90%

EDUCATION

Tufts University

Bachelor of Science Degree in Computer Science and Mechanical Engineering

Medford, Massachusetts

Sep 2019 - Jun 2023

- *Relevant Courses:* Data Structures, Algorithms, Programming Languages, Computation Theory, Machine Structure and Assembly-Language Programming, Web Programming, Security, Linear Algebra, Numerical Linear Algebra, Mathematical Modeling, Differential Equations, Probability and Statistics
- *Extracurriculars:* Japanese Culture Club Eboard, Math Society, Intramural Soccer and Volleyball

The Bronx High School of Science

High School Diploma

Bronx, NY

Sep 2015 - Jun 2019

- *Awards:* National Honors Society, AP Scholars with Distinction, AIME