

# YUMA TAKAHASHI

Software Development Engineer

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## EXPERIENCE

### Redge, Inc

System Organization Engineer

Remote, Japan

April 2024 - Present

- Refactored and modernized a web platform that tracks medical equipment usage across multiple hospitals
- Integrated JavaScript to overhaul the frontend and queried from MySQL database in Retool to build custom dashboards and perform data visualization
- Optimized filter and search methods, improving functionality while reducing server costs

### 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 across diverse contexts, spanning from open-ended inquiries to analytical challenges, enhancing and broadening the AI model's understanding

### Staar Center

Intro to Computer Science Tutor

Tufts University, MA

Sep 2021 - May 2023

- Improved student's assignment scores and letter grades by working with them outside of lectures
- Tutored students learning C++, Python, and Javascript by guiding and mentoring them through questions regarding homework, classwork, exams, and labs

## SKILLS

- |                  |                    |                 |                |                |
|------------------|--------------------|-----------------|----------------|----------------|
| • Python         | • C / C++          | • TypeScript    | • JavaScript   | • Bash         |
| • React Native   | • HTML / CSS       | • Linux         | • Git / Github | • MySQL        |
| • TensorFlow     | • Flask            | • numpy         | • pandas       | • scikit-learn |
| • Problem Solver | • Critical Thinker | • Communication | • Debugging    | • Team player  |

## PROJECTS

### CineRank

- Developed a cross-platform mobile application in a team 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 database, and utilized Nx workspace to manage the codebase and streamline the development process
- Conducted user research and competitor analysis to assess potential interest and market trends
- Increased social interaction by sparking discussions around movies within the community

### Face Recognition

- Built a face recognition AI that identifies and labels individuals in images by matching their facial features against a MySQL database, while handling new entries for future recognition
- Utilizes face\_recognition and OpenCV libraries for generating embeddings and image processing
- Acts as a memory aid, fostering smoother and more personalized social interactions

### Life Log

- Developed a website that logs daily activities generating a breakdown of user's day
- Implemented a Flask backend to handle server requests and user sessions, utilized MySQL database to store daily logs, and developed a responsive JavaScript frontend
- Accelerated user's overall productivity and time management skills by amplifying self-awareness

### LeetCode Replica

- Simulates the LeetCode website by automating the comparison of user-generated solutions with expected outputs to real-world problems
- Engineered a custom testing framework performing unit and batch testing for all test cases
- Expedited user's understanding of data structures and algorithms

### sPool Programming Language

- Executed the full lifecycle development from ideation to deployment in a team of 4 over 5 months
- Created a general-purpose, statically typed programming language using OCaml
- Incorporates concurrent programming via multithreading, and automatic memoization for dynamic programming, and functions as first-class citizens

## EDUCATION

### Tufts University

Bachelor of Science Degree in Computer Science and Mechanical Engineering

Medford, Massachusetts

Sep 2019 - June 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