

Maisha (May) Takahashi

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EDUCATION

Rutgers University

B.S. in Computer Science & B.A. in Mathematics - **GPA: 4.0/4.0**

New Brunswick, New Jersey

May 2027

- **Related Coursework:** Software Methodology, Data Structures, Computer Architecture, Linear Algebra, Graph Theory

EXPERIENCE

Jane Street

Software Engineering Fellow

New York, New York

Jun 2025 – Aug 2025

- Nationally selected as 1 of 12 fellows for an intensive, full-time program focused on advanced software engineering practices, emphasizing functional programming, modular system design, version control, and iterative development
- Developed an electronic trading bot to track exchange state and execute real-time trades using market-making and arbitrage strategies across ETFs, ADRs, and bonds, applying knowledge of asset pricing and spreads in a simulated environment
- Deepened OCaml proficiency through problems involving image manipulation, graph traversal, game AIs, and async systems
- Designed a real-time strategy game in OCaml modeling bacterial survival with resource management, mutation-driven expansion, nonlinear scaling, and AI-controlled adversaries, rendering up to 50 dynamic entities in under 2 ms per frame

Colgate-Palmolive

Software Development Intern

Piscataway, New Jersey

Jan 2025 – May 2025

- Optimized internal IAM tooling capabilities for Google Cloud Platform in React and JavaScript by implementing role removal and ticket cancellation functionalities, resulting in a 50% reduction in administrative support tickets requesting manual action
- Improved release reliability by deploying a comprehensive Freshservice mock system into CI/CD pipelines for testing
- Strengthened pre-release validation with GitHub Actions, ensuring thorough feature verification prior to deploying code

Munch Industries Inc.

Software Engineering Intern

Philadelphia, Pennsylvania

Jun 2024 – Dec 2024

- Automated and streamlined onboarding processes by integrating third-party APIs, reducing operational time by 40%
- Built a data logging system for machine health monitoring using Python and AWS (DynamoDB, RDS) for storage, sending consistent batches of data with SQL at 8-hour and 30-minute intervals determined by the sensitivity of collected information
- Implemented CloudWatch and SNS for an alert system and developed a dashboard to display sensor-specific metrics, allowing all relevant employees to receive notifications of potential issues within a 2-minute timeframe

PROJECTS

Market Owl (Next.js, Tailwind, FastAPI, Ollama, LLaMA, Modal)

- Developed an AI negotiator for Facebook Marketplace in TypeScript (Next.js) and Python (FastAPI, Ollama) to analyze listings and seller messages, reducing fraudulent exchanges by 80% and securing lowered prices in 95% of deal outcomes
- Generated optimized, seller-specific negotiation messages from listing URLs using a fine-tuned AI deployed on Modal

RU Pathway Planner (Svelte, Tailwind)

- Designed a scheduling tool in Svelte (Vite) and Tailwind CSS for Rutgers students to plan up to four semesters in advance
- Created optimized course combinations, considering prerequisites, overlap, and requirements across 150 undergraduate majors

ACTIVITIES AND LEADERSHIP

Phi Chi Theta - Professional Co-ed Business Fraternity (INCOMING)

New Brunswick, New Jersey

Dec 2026

President

Blueprint Incubator

Vice President of Frontend Web Development

New Brunswick, New Jersey

Sep 2024 – Present

- Oversaw a team of five instructors in delivering an 8-week full-stack program for 20 fellows, coordinating curriculum development (React, TypeScript, JavaScript) while teaching lessons and providing hands-on support for individual projects
- Compiled a digital directory of over 50 online references and personalized guides to accommodate various learning styles

RU Origami Club

President and Founder

New Brunswick, New Jersey

Sep 2024 – Present

- Developed a [club website](#) with HTML/CSS/JS and DNS routing to showcase club involvements and upcoming events
- Supervised club activities including elections, recruitment, and weekly workshops, with upwards of 350 students at meetings

SKILLS

Programming: Python, JavaScript, OCaml, React.js, HTML/CSS, Java, TypeScript, C, MySQL, Express.js

Tools: Git, AWS (DynamoDB, RDS, CloudWatch, Timestream, SNS), GCP, JIRA, Confluence, Linux, Flask, MATLAB, LaTeX

General: Japanese, Documentation, Research, Detail/Accuracy, Team Management, Agile Scrum/Methodology, Social Media

Affiliations: MLT, Rewriting the Code, CodePath, Society of Women Engineers, Phi Chi Theta, Girls Who Code, AnitaB.org