

# Ratanak Rin

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## EDUCATION

State University of New York, Stony Brook

Stony Brook, NY

Bachelor of Science in Computer Science

Jan. 2020 - May 2024

Relevant Coursework: Data Structures & Algorithms, Software Engineering, Natural Language Processing

## WORK EXPERIENCE

CAIMI Co., Ltd.

Incheon, Korea

Software Engineer

Jan. 2022 - May 2023

- Developed a **Python-based microservice** for inventory updates using **RabbitMQ**, enabling independent scaling and reducing order processing time by 30% while handling a 40% traffic increase without downtime.
- Optimized **SQL** database with composite indexing and query tuning, reducing query times by 40% and infrastructure costs by 10%, resulting in a 20% increase in user retention due to faster response times.
- Set up **AWS IAM** roles and permissions, and deployed a **Kubernetes EKS** cluster with **Docker** images from **ECR**, reducing time-to-market by 25% through streamlining the deployment pipeline.

Tangram Factory Inc.

Seoul, Korea

Software Development Intern, Backend

June 2021 - August 2021

- Developed an event-driven Customer Relationship Management (**CRM**) tool using **Node.js**'s non-blocking I/O model, achieving a 35% reduction in latency while efficiently supporting over 15,000 concurrent users.
- Implemented a scalable **RESTful API** for a web payment processing service using **Node.js**, integrating **HTTPS/TLS** for secure data transmission and achieving successful production approval.

## PROJECTS

Personal Portfolio Website – [Portfolio Link](#)

MapBook – [Github](#)

Senior Capstone Project

August 2023 - December 2023

- Collaborated with a team of 4 peers to develop a full stack web application that renders and allows maps manipulation using **React.js**, **Node.js** and **Firebase** cloud for file storage.
- Implemented **load balancing** for server-sent event backends using **HAProxy**, enhancing scalability and achieving a 40% improvement in response time and 30% increase in concurrent user capacity.
- Achieved 80% code coverage with end-to-end and component testing using **Jest** and **Cypress**.

Vital – [Github](#)

MLH Hackathon 2024 - Best Health Project Award Winner

February 2024

- Built an AI-powered web recommender for dietary supplements with **React.js** and **HuggingFace's** pretrained sentiment analysis model, achieving 95% user satisfaction from 50+ testers.
- Enhanced the system's scalability and performance by seamlessly integrating the AI model through a **Python-Node** child process running on an **Express** server.
- Cleaned and prepared 10,000+ data points with **Pandas**, reducing data preparation time by 15% and improving model wording precision.

## SKILLS

Programming Languages: Python, Java, C, JavaScript, TypeScript, HTML, Tailwind CSS, Shell Scripts

Others: Git, React.js, SQL, MongoDB, Redux, Django, FastAPI, GraphQL, Docker, Apache Kafka, AWS Cloud

## HONORS AND AWARD

Vice President of SUNY Korea Computing Society

August 2022 - December 2022

- Worked with university faculties to organize events, including seminars and weekly coding challenges.

Recipient of Stony Brook University Merit Scholarship

Jan. 2020 - May 2024