Ratanak Rin

WORK EXPERIENCE

UniPlanet LLC

Remote / Stony Brook, NY

Software Engineer

September 2024 - April 2025

- Developed a smart document system using LayoutLMv3 model to extract structured data from store promotional posters, accurately identifying offers, validity periods, and pricing with 93% precision, reducing manual review time by 70%.
- Developed a responsive **Next.js** dashboard with **TypeScript** and **D3.js** that visualizes ML poster analytics, leveraging **SSR** for performance, and reusable component architecture that reduced load times by 65%.
- Integrated OpenAl API with custom prompt engineering for smart content tagging, auto-generating targeted social media captions and hashtags based on promotional poster analytics.

Incheon, Korea CAIMI Co., Ltd.

Associate Software Engineer

January 2022 - May 2023

- Developed a **Python microservice** medical device inventory system using **Django** and **RabbitMQ**, enabling real-time status tracking and reducing device processing response time by 30%.
- Enhanced database performance with SQL query optimization and Django ORM composite indexing, reducing guery times by 40% and infrastructure costs by 10%, leading to a 20% increase in user retention.
- Containerized microservices using **Docker**, creating reusable deployment templates and implemented **CI/CD** pipelines that reduce deployment time from hours to minutes, increasing development productivity.

Tangram Factory Inc.

Seoul. Korea

Software Development Intern

June 2021 - September 2021

- Developed a real-time customer insights platform in **Node.js**, implementing event-driven architecture to optimize feedback processing, reducing latency by 35% and supporting 15,000+ simultaneous users.
- Implemented a scalable **RESTful API** for a web payment processing service using **Node.js** and **Express**.
- Improved **React** components with **Vite** and **Tailwind**, facilitating seamless transitions between PAYCO, Samsung Pay and other payment solutions, reducing customer wait times by 30% from 7 to 4 seconds.

PROJECTS

Personal Portfolio Website - Portfolio Link

Vitals - Github

MLH Hackathon 2024 - Best Health Project Award Winner

February 2024

- Built an Al-powered dietary supplement recommender with React.js and incorporated a HuggingFace's pretrained Named Entity Recognition (NER) model, achieving 95% user satisfaction from 50+ testers.
- Implemented a custom API integration layer that connected the JavaScript stack with a Python service handling the machine learning inference, ensuring seamless data flow and responsive recommendations.

SKILLS

Programming Languages: Python, Java, JavaScript, TypeScript, Shell Scripts

Others: Git, React.js, Redux, Node.js, SQL, MongoDB, Django, GraphQL, Docker, RabbitMQ, AWS Cloud

EDUCATION

State University of New York, Stony Brook

Stony Brook, NY Bachelor of Science in Computer Science January 2020 - May 2024

GPA: 3.3

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

January 2020 - May 2024