Ratanak Rin

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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 **OpenAI API** with custom prompt engineering for smart content tagging, auto-generating targeted social media captions and hashtags based on promotional poster analytics.

CAIMI Co., Ltd.   Incheon, Korea
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 query 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 AI-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 at Stony Brook   Stony Brook, NY
Bachelor of Science in Computer Science   *January 2020 - May 2024*
Specialization in Artificial Intelligence and Data Science

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*