

# DANIEL SEUNG HYEON RYU

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## EDUCATION

### Washington University in St. Louis

BS and MS in Computer Science

Graduation: May 2024

GPA: 3.9/4.0

Honors: Tau Beta Pi - Engineering Honor Society

## TECH STACK

**Programming Languages:** Java, SQL, Typescript, Python, Javascript, HTML, CSS, Go, Swift, PHP, C++, C#, Solidity

**Frameworks:** Node.js, React.js, React-Native, Django, Vue.js, Nuxt.js, Express.js, Micronaut

**Database:** MySQL, MongoDB, PostgreSQL, Elasticsearch, AWS RDS, Firebase

**Tools & Platform:** Kubernetes, Docker, S3, EC2, Lambda, Kinesis, Numpy, Git, scikit-learn, TensorFlow, Apache, ArgoCD, Vercel, SVN

## WORK EXPERIENCE

### Software Engineer @ Ellipsis Travel

Jan. 2024 – Current

Vue.js | Django | Go | OpenAI | Python | Typescript | Node.js | OAuth

Saint Louis, MO

- Migrated **microservices** to **Go**, enhancing concurrency in geospatial data retrieval from 30+ APIs, which reduced container image sizes and achieved a 20% improvement in response time.
- Implemented an email parsing feature using **Python**, **Django Celery Beat** and the OpenAI Chat Completion API, automating the extraction and translation of trip confirmation emails into application-compatible objects, improving user satisfaction.
- Crafted **Vue.js** components for enhanced search functionality, using custom directives for better reusability and DOM efficiency, boosting user interface dynamics.

### Software Engineer @ Ellipsis Travel

Jun. 2023 – Aug. 2023

Typescript | Python | Node.js | Vue.js | Elasticsearch | ArgoCD | Kubernetes

Saint Louis, MO

- Integrated **microservices** architecture using **TypeScript** and **Node.js**, revamping the server application and achieving a 30% reduction in API latency, leading to faster data processing.
- Streamlined **data ingestion** from multiple API services to **Elasticsearch** with **Python** and **ArgoWorkflow**, enhancing data accuracy and search efficiency.

### Teaching Assistant @ Washington University in St. Louis

Jan. 2023 – Dec. 2023

Javascript | MongoDB | MySQL | PHP | AWS | MongoDB | Git | React.js | Node.js | HTML | CSS

Saint Louis, MO

- Mentored 20 students in Software Development, focusing on **full-stack web development**, and received positive feedback for improving students' practical knowledge.

### Research Software Engineer @ Washington University School of Medicine in St. Louis

Sep. 2022 – Dec. 2023

Swift | Java | Javascript | React.js | AWS Kinesis | AWS Lambda | AWS S3 | PostgreSQL

Saint Louis, MO

- Developed an IoT-based patient monitoring system using **Java** and **AWS** cloud services, tracking over 100 subjects and contributing to a notable enhancement in patient monitoring and outcome analysis.
- Optimized **AWS Lambda** functions and integrated **AWS Kinesis** for patient data streaming, achieving an 80ms reduction in latency and significantly enhancing real-time data analysis capabilities.

### Fullstack Software Engineer @ Object Computing Inc.

Jun. 2022 – Aug. 2022

Java | SQL | Javascript | React.js | Micronaut | PostgreSQL

Saint Louis, MO

- Launched a new employee onboarding feature for open-source HR software, reducing onboarding time by 30% and improving the experience for HR managers and new hires.
- Implemented bidirectional **RESTful APIs** for onboarding progress tracking, ensuring accurate and timely data synchronization between the client and **PostgreSQL** database.

## PROJECTS

### Travelog | project link

Feb. 2024 – Current

- Developed a **Vue.js** browser extension that captures and organizes travel destination data encountered by users during browsing sessions, enhancing content discovery.
- Implemented DOM manipulation and text-generation services with **Typescript**, **Node.js**, and OpenAI Chat Completions API.

### Pepper Inc. | marketplace | collection website

Nov. 2021 – Dec. 2022

- Founded a Web3 brand and led a group of developers and designers in creating an NFT collection.
- Orchestrated a marketplace dApp on the Polygon network, and deployed NFT collection website on an **AWS EC2** instance using **Solidity**, **React.js** and **Typescript**.