

# DANIEL SEUNG HYEON RYU

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## EDUCATION

### Washington University in St. Louis

Graduation: May 2024

Candidate for BS and MS in Computer Science

GPA: 3.9 / 4.0

Honors: Tau Beta Pi - Engineering Honor Society

Coursework: Advanced Algorithms, Database Management, Artificial Intelligence, Machine Learning, Object-Oriented Programming, Concurrent Programming, Data Structures and Algorithms and etc.

## TECH STACK

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

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

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

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

## WORK EXPERIENCE

### Software Engineer @ Ellipsis Travel

Jan. 2024 – Current

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

Saint Louis, MO

- Migrated backend operations from Typescript and Node.js to **Go**, enabling high-performance concurrency in handling geospatial data from over 30 API services, resulting in a 20% decrease in response time.
- Crafted a scheduled email parser using **Django Celery Beat** and **OpenAI** Chat Completion API, automating the process of crawling trip confirmation emails and adding them to itineraries, resulting in improved user experience.

### Software Engineer @ Ellipsis Travel

Jun. 2023 – Aug. 2023

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

Saint Louis, MO

- Revamped the backend by integrating **distributed systems** with a microservices architecture using **Typescript**, and **Node.js** to reduce API latency by 30%.
- Established streamlined data ingestion pipeline from multiple API services to **Elasticsearch** database using **Python** and **ArgoCD**.

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

Jan. 2023 – Dec 2023

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

Saint Louis, MO

- Mentored a cohort of 20 students for a Software Development course encompassing web application development in client-side and server-side **Javascript**, **SQL**, **PHP**, **database management**, building **Apache** web server, utilizing web frameworks, and more.

### 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 a real-time patient monitoring system using AWS services like **Kinesis**, **Lambda**, and **RDS** to track the functional status of over 100 subjects, resulting in improved patient outcomes.
- Successfully refactored the code and logic of **AWS Lambda** functions, resulting in an 80ms reduction in real-time streaming latency of patient data.

### Founder and Tech Lead @ Pepper Inc.

Nov. 2021 – Dec. 2022

Solidity | Typescript | React.js | OpenZeppelin | AWS EC2

Saint Louis, MO

- Founded a Web3 brand and spearheaded 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**, **OpenZeppelin**, **React.js** and **Typescript**.

### Fullstack Software Engineer @ Object Computing Inc.

Jun. 2022 – Aug. 2022

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

Saint Louis, MO

- Enhanced company's open-source HR software by deploying a new onboarding feature that expedited the employee onboarding process for new hires and HR managers by 30%.
- Streamlined employee onboarding progress tracking by implementing **bidirectional RESTful API services** connecting the client and **PostgreSQL** database, ensuring accurate real-time updates.

## PROJECTS

**Priism** | github.com/danie1r/Priism-mobile

Jan. 2023 – May 2023

- Crafted an iOS/Android mobile app for an anonymous social platform for college students using **React Native**, and **Firestore**.
- Implemented user and post-channel privacy security features using **Firebase Auth** and **Zapier**, contributing to a more secure user experience.