

Daniel Seung Hyeon Ryu

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Technical Skills:

- **Programming Languages:** Javascript, Python, Java, C++, Swift, C, Typescript, SQL, Solidity, C#, PHP
- **Web-Design:** React.js, HTML, CSS, MUI, Figma
- **Frameworks:** Micronaut, Node.js, Truffle, Selenium
- **Database:** Firebase, MongoDB, PostgreSQL, Flyway
- **Experience with:** AWS, Git, Github Actions, Docker, Apache, SVN

Work Experience:

Research Software Engineer

Sep. 2022 - Current

Washington University in St.Louis, MO

- Released an iOS health application for tracking the functional status of 100+ patients with musculoskeletal disorders using **Swift, PostgreSQL, and Apple Healthkit API**.
- Revamped the EDC application for doctors to enroll subjects in the study using **Javascript and Java** and reduced latency by 5 ms.

Software Engineer Intern (Full-stack)

Jun. 2022 - Aug. 2022

Object Computing Inc. STL, MO

- Launched a new onboarding web application and innovated the onboarding experience for new hires and HR managers by streamlining the whole process, reducing the time taken to onboard a new employee by 40%.
- Optimized web components using **React** and **Material UI(MUI)** library and shortened total render time by 6% using **React** and **Material UI(MUI)**.
- Constructed **RESTful web services** and **DTOs** with **Java** using the **Micronaut** framework and enhanced the elapsed time by 10% for **SQL** queries to execute within the **PostgreSQL** database.
- Streamlined and simplified the process of tracking the progress of signing employment documents by integrating the **SignRequest API**.

Software Engineer

Jun. 2019 - Jan. 2020

Onnuri iKorea, Seoul, South Korea

- Introduced a web data mining tool using **Python, Selenium WebDriver, and BeautifulSoup** library to collect and process data for understanding target consumers' online behaviors.
- Devised an **AI** tool using **Python** that can collect data and analyze number of potential customers from over 300 Instagram accounts based on keyword inputs.

Projects:

ConcertGO | github.com/danie1r/ConcertGO

Dec.2022 - Present

- Currently developing a Chrome Extension/iOS app for viewing and buying tickets to local concerts using **Spotify API, Javascript, and Swift**.

Pepper Inc. | www.peppermotor.com

Nov. 2021 - Dec. 2022

- Spearheaded a group of developers and designers in creating an NFT collection business that was recently launched in October 2022.
- Deployed **smart contract** for the NFT marketplace **dApp** and NFT token on the Polygon network using **Solidity, Ethereum Virtual Machine API (EVM), OpenZeppelin, and Typescript**.
- Created an NFT collection website with **React and CSS** and deployed the website using **AWS EC2 Instance**.

CSE332 - Object Oriented Programming

Aug. 2022 - Dec. 2022

- Built Tic-Tac-Toe and Gomoku games and developed adversarial **AI** agents to play against the user using **C++**.
- Designed Minmax Algorithm for the **AI** agent using **C++** and had an 80% win rate against human players.

Catch Me If You Can | github.com/danie1r/Catch-Me-If-You-Can

Nov. 2022 - Dec. 2022

- Directed an **iOS** game application that hosts an interactive multiplayer tag game using **Swift, MapKit, and Ruby**.
- Constructed the backend service with Realtime **Firebase Database**, and scaled the application to hold up to over 100+ players.

Poke-Chat | github.com/danie1r/Poke-Chat

Nov. 2021 - Dec. 2021

- Produced a web application game inspired by the Pokémon game with a real-time chat room feature using **React.js, React Bootstrap, and Javascript**.
- Implemented real-time messaging with **MongoDB** database, **React Redux**, and **Socket.io** library.

Education:

Washington University in St.Louis | McKelvey School of Engineering

Expected Graduation: May 2024

Candidate for BS and MS in Computer Science

GPA: 3.9

Honors: *Tau Beta Pi* - Engineering Honor Society

Relevant Coursework: Object-Oriented Software Development, Parallel and Concurrent Programming, Mobile App Development, Artificial Intelligence, Data Structures and Algorithms, Rapid Development and Creative Programming