

Sangwoo Han

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EXPERIENCE

Software Developer | DNEG

May 2022 – Present

Python, Flask, MySQL, RabbitMQ, Jira, Jenkins

Montreal

- Designed and implemented an asynchronous automated testing service with RabbitMQ, reducing key testing workloads by up to 50%.
- Implemented scalable APIs to manage DCC assets such as rigs, models, and textures.
- Addressed regular bugs and features in existing services leveraging CI/CD pipelines to rapidly iterate and Kanban boards to prioritize requirements.

Software Developer Intern | Atelier Paper

May 2021 – September 2021

Node.js, Express.js, PostgreSQL, RabbitMQ, Redis, GitHub Actions

Seoul

- Designed and implemented scalable APIs to manage construction documents.
- Reduced response time by up to 80% of key REST API endpoints by updating database indexes and implementing caching with Redis.
- Identified and addressed SQL injection vulnerabilities in major services.

PROJECTS

Channels | *Flask, PostgreSQL, React.js, Docker, Google Cloud Run, Cloudflare, Auth0, Socket.IO*

- Built an instant messaging social platform where users can create and join channels to chat.
- Implemented a single-page application in React.js, added authentication with Auth0, and deployed it with Cloudflare CDN, reducing response time by up to 90%.
- Designed and implemented a microservice architecture with a web, chat, notification, and online presence service.
- Containerized services with Docker and deployed them with Google Cloud Run.

Porrent | *Python*

- Built a BitTorrent Client from scratch with Python.
- Implemented bencoding and bdecoding algorithms to parse Torrent files.
- Extensively used socket programming to communicate with trackers and peers.
- Leveraged multithreading to concurrently download data from peers, reducing average download time by 95%.

Deep Learning Library | *Python*

- Built a deep learning library from scratch in Python.
- Vectorized forward and backpropagation, reducing the time to train a neural network by 98% to score a 99% accuracy on the MNIST dataset.

Sign Language Detection | *Python, PyTorch, React*

- Trained a neural network to recognize sign languages using PyTorch.
- Built a single-page application with webcam access with React.js.
- Deployed the application with Cloudflare CDN, reducing response time for users in Korea by 80%.

TECHNICAL SKILLS

Languages: Python, JavaScript/Node.js, Go, C, Java

Frameworks/Libraries: Flask, Express.js, PyTorch

Developer Tools: Docker, MySQL, PostgreSQL, RabbitMQ, Jira, Jenkins, GitHub Actions, Redis

EDUCATION

Concordia University

Montreal

Bachelor in Computer Science and Mathematics

Aug 2018 – May 2022

- GPA: 3.5