# Yunho Kee

### **OBJECTIVE**

To design <u>feasible</u> systems and fill in the gaps in reusable software by leveraging the principles of computer science

### **SKILLS**

Java | Spring Framework | Python | Django REST Framework | FastAPI | JavaScript | Apache Airflow | Celery | Amazon DynamoDB | PostgreSQL | Oracle | GitHub Actions | Maven | Terraform Cloud | AWS IAM | SSH Tunneling

#### WORK EXPERIENCE

**Backend Developer** 

Haezoom

Seoul, South Korea

1 vr 9 mos

12/2022 - 08/2024

### Solar Power Forecasting System Enhancement (50k+ daily transactions)

- Fixed the algorithm with leakage, boundary errors, invalid cache, and timezone bugs (open source contribution)
- Fulfilled **24x more frequent** requests, reducing processing time from 3 hours to 2 minutes (**90x faster**) through chunking, file compression, tensor transposition, and preprocessing (AWS Fargate, NumPy, netCDF4, SciPy)
- Optimized coordinate transformation by reverse engineering (47 s  $\rightarrow$  14  $\mu s$ , float32  $\rightarrow$  float64, 99.55%  $\rightarrow$  100%)
- Polled asynchronous inputs using non-blocking read-through caching and two-pointer techniques (Apache Airflow)
- Customized **serializers** to respond in the requested **timezone** and **autofill** periods (Django REST Framework)
- Integrated third-party APIs for consistent geocoding, reverse geocoding, and address search (FastAPI)

### Settlement System Development (10k+ daily inserts)

- Utilized primitive floating-point numbers instead of decimal objects, testing accuracy against online judge data
- Modeled formulas as directed acylic graphs (DAGs) loaded by reflection and evaluated asynchronously (Celery)
- Stored results as segment trees with soft delete, partial indexes, and covering indexes (PostgreSQL)
- Customized **filters** to set the default **timezone** and **autocomplete** periods from dates (Django REST Framework)

### Cloud Security System Development (RBAC, ABAC, Terraform Cloud, AWS IAM)

- Managed just-in-time access using **roles**, break-glass access via **tags**, and network infrastructure as code (**IaC**)
- DevOps Engineer
  - MidasIn Pangyo, South Korea
- 5 mos 05/2022 09/2022
- Developed a cross-account AWS user management system with observability (Spring Boot, Fluent Bit, Datadog)
  Software Developer Republic of Korea Navy South Korea 1 yr 8 mos 06/2020 02/2022
- Developed an **internet-based** <u>grievance service</u> and **intranet** services for educational assessment (<u>exceptional</u> <u>award</u>), mental health assessment, and attendance management, fixing <u>missing rows</u> (Spring Framework, Oracle)

## **PROJECTS**

#### LeetCode Daily Google Sheets Apps Script (JavaScript, GraphQL)

- 1 mo 01/2025 02/2025
- Replaced individual uploads with periodic <u>crawling</u>, and an optional Chrome extension with a **bookmarklet** script
  Woowacourse Java Format (Java, Gradle, Maven, GitHub Actions)
  2 mos
  10/2024 11/2024
- Deployed IDE plugins (IntelliJ, Eclipse), cross-platform binaries (macOS, Linux, Windows), and to Maven Central WICWIU (C++, CUDA, cuDNN, CNN, Batch Normalization, ReLU, Sigmoid)
  10 mos 07/2017 05/2018
- Released the first open source deep learning framework among Korean universities (outstanding paper award)

#### CONTRIBUTIONS

Quarto (PowerShell), Posit (RStudio Inc) | pvlib python, Sandia (SNL) | Static JIRA issue export (PHP), Netresearch | Python Polylith Example (Serverless Framework) | Course: GitHub Pages, 61.8k (42k+19.8k) repositories (Jekyll)

### **EDUCATION**

**B.S. in Computer Science and Engineering** (Seoul Accord Recognized Program), GPA 3.95/4.5 (**Cum Laude**) **Handong Global University** Pohang, South Korea 5 yrs 03/2015 - 02/2020

- 2019 ACM-ICPC Seoul Regional Finalist
- **Teaching Assistant:** ICT Problem Solving (Spring 2019), Computer Architecture and Organization (Fall 2018), Algorithms Analysis (Spring 2018), C Programming Lab (Fall 2017), C Programming (CSEE) (Summer 2017)

### **CERTIFICATIONS**

### **Engineer Information Processing**

**National Technical Qualification** 

South Korea

08/2021