

# JUNHYUNG KI

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- ★ English - Level C1 | German - Level B1

## EDUCATION

### Fachhochschule Dortmund, Germany

M.Eng in Embedded Systems for Mechatronics

Oct 2018 - Apr 2021 | GPA 1,6 (German Scale)

- **Relevant Modules:**
  - IoT & Edge Computing
  - SW Architectures
  - Software System Design
  - R&D Project Management
  - Requirement Engineering

### Korea Polytechnic University, South Korea

B.Sc in Mechatronics Engineering

Mar 2010 - Feb 2018 | GPA 3,53 (Korean Scale)

- Language Study Abroad (Apr, 2015 - May, 2016)
- Military Service (Sep, 2010 - Jun, 2012)

## PERSONAL PROJECT

### 4G Remote Control Hobby FPV Car (WIP)

Dec 2022 - Present

- Development of Internet-controlled First Point of View (FPV) 4G Hobby Car with Raspberry Pi, Spring Boot, Kafka and AWS

- ★ **Project Repository**  
<https://github.com/junh-ki/smart-home-iot>

## TECHNICAL SKILLS

### Languages

- Java, SQL, Shell, Python, Javascript

### Framework

- Spring Framework / Spring Boot, Play Framework

### Build Tools

- Maven, Gradle, SBT

### CI/CD

- Jenkins

### DevOps

- Git, Docker, Kubernetes

### Message Queue

- Kafka

### Caching / Databases / Monitoring

- Redis, Elasticsearch
- PostgreSQL, AWS Redshift, MySQL
- Logstash, Grafana

### Cloud Provider

- AWS

## PROFESSIONAL EXPERIENCE

### Java Backend Developer

Holidu GmbH, Munich

Jun 2021 - Present | IT (Travel Domain)

**Team: In-house Search Engine Optimization (SEO) support development team**

- Development of data-intensive endpoints to hydrate user-facing SEO pages
- Development of internal tools and APIs for SEO marketing managers
- Development of asynchronous processes to keep and reindex the system of records (Elasticsearch, Redshift) to the source of truth (PostgreSQL, GoogleAds)
- Securement of Grafana dashboards for APM and team intelligence
- Development of the company core geo tool that provides geospatial services
- Microservicification of monolithic application (Play Framework -> Spring Boot)
- Communication, collaboration and knowledge sharing across different departments, stakeholders, and in and out of the team

- ★ [www.holidu.com](http://www.holidu.com)

### Master Thesis Student

Robert Bosch GmbH, Stuttgart

Jul 2020 - May 2021 | IT (Automotive Domain)

**Topic: Cloud-based Data Evaluation for Vehicle Tamper Detection using Eclipse Kuksa**

- End-to-end open-source software development of NOx emissions diagnostic methodology from the onboard device to cloud data visualization with Bosch IoT Hub.
- ★ **Publication** ([Link](#)) awarded by the [Eclipse SAAM Mobility 2021](#) Conference
- ★ **Project Repository**  
[https://github.com/junh-ki/dias\\_kuksa](https://github.com/junh-ki/dias_kuksa)
- ★ **Tutorial Page**  
<https://dias-kuksa-doc.readthedocs.io/en/latest/>

### Research Assistant

Fachhochschule Dortmund, Dortmund

Mar 2019 - Mar 2020 | IT (Automotive Domain)

**Model-based development for real-time analysis systems**

- Developed a genetic-algorithm-based project to calculate best- and worst-case automotive task response time as well as task chain latency analysis in heterogeneous systems
- ★ **GSoC 2019 Code Archive** ([Link](#))
- ★ **Publication** ([Link](#))
- ★ **Project Repository**  
[https://gitlab.idial.institute/junhyung.ki/gsoc\\_rta](https://gitlab.idial.institute/junhyung.ki/gsoc_rta)