



SEUNG-GU KANG

AI SOFTWARE ENGINEER

✉ seunggu.kang.kr@gmail.com
☎ +49 152 0950 8769
📍 Munich, Germany
in linkedin.com/in/seung-gu-kang
🐙 github.com/seung-gu

EDUCATION

TECHNISCHE HOCHSCHULE DEGGENDORF (THD)

2017 – 2019

Master Applied Research
in Engineering Science

KOOKMIN UNIVERSITY SEOUL, SOUTH KOREA

2010 – 2016

Bachelor of Electronic Engineering

SKILLS

COMPUTER LANGUAGE

Python (professional)
C/C++ (advanced)
Java (basics)

DEVELOPMENT TOOLS & LIBRARIES

LangGraph / Google ADK / LangFuse
TensorFlow / PyTorch / cuDNN / TensorRT
MySQL / PostgreSQL / Kafka / REST API
Docker / Datadog / Lens / Grafana
Azure AI Foundry / Google AI Studio
OpenCV / CUDA

LANGUAGE

Korean (native)
English (business fluent)
German (intermediate)

INTRODUCTION

Software engineer with 5+ years in AI and over a decade in computer vision, delivering end-to-end solutions from design to deployment. Recently built AI-driven document processing pipelines in the automotive domain using an agent-orchestrated state machine, integrating OCR, CNN-based table structure analysis, and LLM-driven semantic parsing with NER, augmented by human-in-the-loop validation for high-precision, scalable automation.

PROFESSIONAL EXPERIENCE

Carsync GmbH | München

January 2020 – present

• Project ECO / September 2021 – present

- **Agent-Orchestrated Workflow Automation:** Designed and implemented an agent-orchestrated state machine using LangGraph and Google ADK to automate complex document workflows in the automotive domain (e.g., leasing contracts, invoices, registration documents)
- **Document Extraction and Processing:** Built pipelines combining OCR for text recognition, CNN/CRNN for table structure analysis, and LLMs for semantic parsing and NER
- **Custom Model Development:** Developed CNN/CRNN models for table structure recognition and a domain-specific classifier model with text vectorization for automotive document categorization
- **Performance Optimization:** Implemented parallelized processing pipelines, reducing computation time and operational costs for large-scale workloads
- **Backend & Integration:** Built a Docker-based backend on AWS with MySQL/PostgreSQL integration and Kafka-based microservice communication for scalable deployment

• Project TELPA / January 2020 – August 2021

- Developed free parking lot detection system using an external single camera
- Implemented 3D pose estimation from 2D camera data using a trained model
- Engineered quantized object detection models for edge devices (Nvidia Jetson Nano) optimized with TensorRT
- Collected, labeled, and trained multi-country license plate datasets using transfer learning

EXPERIENCE

DE Software GmbH | Dingolfing

Research Assistant (December 2018 – May 2019)

- Developed real-time gesture recognition system on Raspberry Pi using a 3D Time-of-Flight camera

THD Infineon Lab | Deggenndorf

Research Student (October 2017 – September 2018)

- Developed an end-to-end gesture recognition product on resource-constrained devices using a 3D ToF camera, including hardware circuit design, battery management, 3D-printed enclosure, embedded firmware, and graphical user interface (GUI) for real-time interaction.