

Daemyeong Kang

Software Engineer

👤 Profile

8 years+ of academic & industry experiences in the following:

- Experience in C/C++/JAVA/Assembly Programming, Knowledge and Background applicable to Low Power Wireless Network-based IoT Gateway(Hub) SW Platform and Battery Management System FW(Battery Pack Control & Functional Safety, Gauging, etc)
- Software Debugging Skills on Embedded Real-time Operating Systems and Linux Systems
- Experience in Device Driver Development and Testing
- Experience in using debug tools like JTAG debugger, Oscilloscopes, Electric Loaders
- Experience in Smartwatch Applications(Samsung Tizen), Blockchain(Hyperledger-Fabric), and Cloud Orchestration using Kubernetes
- Expertise in Interacting with Cross-functional Software and Hardware Teams
- Excellent Communication, Writing, and Presentation Skills

📁 Employment History

Senior Research Engineer at Institute of Convergence IT@Korea University, Seoul

November 2020 — August 2021

- COVID-19 Confirmed Positive Cases Management System using Smartwatch and Hyperledger-fabric Blockchain Network for Data Integrity
- Kubernetes Cluster Network Control with Libera(Advanced Network OS developed by KUOSLAB)

Senior Researcher at LG Electronics, Seoul

July 2015 — January 2020

Senior Researcher / Convergence Center, Home IoT Team (July '15 ~ December '18)

- Developing IoT Gateway based on Zigbee / Z-wave communication
 - Main Works: Defining Abstraction of Things(Types, Attributes, etc.), implement Gateway Framework SW, Designing and Implementing the Interface for Interworking between IoT Gateway to LG ThinQ Cloud Server
 - Development of LG SmartHub (Speaker Type) IoT Gateway SW Platform
 - Development of LG U+ IoT@Home IoT Gateway SW Platform
 - Development of LG SmartHub2(General Type) IoT Gateway SW Platform

Senior Researcher / Automotive & Business Center, Energy Storage Control Task (Jan. '19 ~ Jan. '20)

- Developing Wireless Battery Management System SW
 - Developing BLE-based Wireless Battery Management System SW (for GM BOLT)
 - Development of Wireless Battery Management System SW (for GM

Details

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Date of birth

January 29th, 1988

Nationality

Republic of Korea

Links

[LinkedIn](#)

[Github](#)

Skills

Languages: C / C ++, JAVA,
Python, Javascript, go

Platforms: Amazon Web Service,
Linux programming, OSGi,
Embedded programming, RTOS,
Docker, Kubernetes

Network: Wi-Fi, Zigbee, Z-Wave,
BLE, TSCH (802.15.4), Ethernet,
MQTT, Openflow, Hyperledger-
Fabric Blockchain Network, etc.

Understanding Compiling,
Linking, and Debugging in Linux,
Tizen

Battery Related: Battery Pack
Control SW, Battery Safety
Certification (IEC 60730)

Experience in software
development methodologies,
version control and analysis tools
such as Agile, GIT, SVN, JIRA,
Jenkins, Code Sonar, etc.

Languages

Korean

English(IELTS General 6.5)

- BOLT) based on TSCH (Time Slot Channel Hopping, 802.15.4 MAC)
- Developing BMS SW for Home ESS
 - RTOS Porting, Operation System Abstraction Layer (OSAL) Design
 - Designing and Implementing Cell Monitoring, Current Sensing, Temperature Sensing Logic
 - Designing and Implementing Cell Balancing Logic
- Developing BMS SW for Small Battery Packs in Lawn Mower Robots
 - Safety Certification (IEC 60730-1 Annex H) Work (w / TÜV Rheinland)
 - Functional Safety Logic Design and implementation, Designing Tests for Certification, Documentation
 - MCU self-diagnosis logic design and implementation, Designing Tests for Certification Designing, Documentation
 - Expansion to other small appliances such as Cordless Vacuum Cleaners and Robot Vacuum Cleaners

Education

Master's degree in Computer Science & Software Engineering, Korea University, Seoul, South Korea

March 2013 — August 2015

Bachelor's degree in Computer Science & Software Engineering, Soon Chun Hyang University, Asan, South Korea

March 2006 — February 2013