

## Hyunwook Kim

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### PROFESSIONAL EXPERIENCE

#### Hwashin America Corporation

June 2024–Present

##### IT Specialist

- Designed, configured, and secured enterprise network infrastructure for 800+ users, including routers, switches, firewalls, VPNs, and IP-based CCTV systems, ensuring high availability, performance, and compliance with security standards
- Integrated OPC servers with industrial systems (LabVIEW, PLCs) to collect and visualize real-time operational data, enhancing visibility and enabling early detection of anomalies in OT environments
- Gained practical exposure to SCADA and HMI systems in manufacturing settings, building a strong foundation in ICS architecture and industrial protocols such as Modbus/TCP and EtherNet/IP
- Monitored and validated production data using Oracle Database and LabVIEW, identifying discrepancies and maintaining data accuracy for operational analysis and compliance reporting
- Strengthened organizational cybersecurity by auditing firewall rules, managing VPN access, and implementing network segmentation to reduce attack surface and protect critical infrastructure from internal and external threats

#### Artificial Intelligence Institute of the University of South Carolina (AIISC)

Jan. 2023–May 2024

##### Research Collaborator

##### “Explainable Neuro-Symbolic Model for Ingredient Substitutions”

- Organized datasets comprising over 30,000 ingredient-substitute pairs in JSON format, alongside comprehensive nutritional data, advancing food computing research.
- Developed a user-centric recommendation algorithm utilizing an ingredient-substitute knowledge graph. This implementation optimized the ingredient-substitute pair retrieval speed by 10%, enhancing both data accessibility and the efficiency of the recommendation algorithm.

#### Republic of Korea Marine Corps, Pohang, Republic of Korea

Mar. 2011–Dec. 2012

##### Staff Sergeant

- Managed a database for a fleet of 100+ military vehicles, optimizing maintenance schedules and reducing accident risks by 10% and major breakdown incidents by 25%.
- Recognized with the Best Marine Award in 2011 for outstanding dedication and performance.

### SKILLS (Network Infrastructure | Cybersecurity | OT Security)

Networking (TCP/IP, VLAN, VPN, Firewalls), Network Security (SIEM, IDS/IPS, MITRE ATT&CK), AWS Cloud (IAM, VPC), Windows Server, Linux, Active Directory, Python, Wireshark, OPC Server, SCADA (FactoryTalk SE), PLC Programming (Studio 5000, GX Works), HMI (FactoryTalk ME), Industrial Protocols (Modbus, EtherNet/IP)

### CERTIFICATE

**GX Works 3 Programming** – Mitsubishi University at Allied Automation, Inc.

Mar. 2025

**PLC Basics GX Works 2** – Mitsubishi University at Rhodes State College

Feb. 2025

**AWS Certified Cloud Practitioner Certification** – Amazon Web Services

Aug. 2023

### EDUCATION

**University of South Carolina (GPA: 3.94 / 4.00)** MS in Computer Science

Jan. 2023–May 2024

**University of South Carolina (GPA: 4.00 / 4.00)** Ph.D. in English

Aug. 2019–May 2024

**Chonnam National University** BA and MA in English

Mar. 2014–Aug. 2019