# **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 realtime 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 Staff Sergeant

Mar. 2011–Dec. 2012

- 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 (Cybersecurity | Network Infrastructure | 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/SCADA Systems, PLC Basics (Studio 5000, GX Works), 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