Hyuntae Yoo

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Cybersecurity Specialist | Network Engineer | IT Support

Detail-oriented **Cybersecurity and Network Engineering student** at **Purdue University** with hands-on experience in **network deployment, system administration, and secure infrastructure design**. Proven ability to troubleshoot, secure, and optimize IT systems through academic research and military service. Passionate about building resilient, scalable, and secure network environments.

Key Skills & Core Competencies

- **Network Engineering:** Cisco, Juniper, HP Aruba, VLANs, OSPF, VRRP, MSTP, DHCP, NAT, NTP
- **Cybersecurity:** Firewalls, IDS/IPS, Web Application Firewall (WAF), Splunk SIEM, NIST 800-53, IAM, Threat Detection, Network Segmentation
- **Cloud & Virtualization:** AWS (EC2, VPC, RDS, EFS, Auto Scaling, IAM), VMware ESXi, Virtual Machines
- **Operating Systems:** Linux (RHEL, Ubuntu), Windows Server, macOS
- **Programming & Scripting:** Bash, PowerShell, Python (automation basics)
- **Tools & Platforms:** TFTP, Wireshark, Git, Ticketing Systems, AWS Pricing Calculator
- **Operations Management**: Cost Reduction, Risk Management, Process Optimization, Process Improvement
- **Languages:** English (Fluent), Korean (Native)
- **Communication**: Written & Verbal Communication, Conflict Resolution, Customer Service, Team Collaboration

Professional Experience

Network Engineering Aide

Purdue University — West Lafayette, IN | Jan 2025 – Present
- Troubleshoot and maintain network infrastructure supporting 30,000+ users across campus.
- Deploy and install networking equipment (Cisco, HP) for academic and administrative environments.
- Collaborate with Network Engineers to resolve outages and optimize uptime through root-cause analysis.
- Document network configurations and assist with preventive maintenance plans.

Undergraduate Research Assistant

Purdue University — West Lafayette, IN | Aug 2024 – Aug 2025
- Conducted independent research on **WebAssembly (WASM)** focusing on its **security implications and performance**.
- Analyzed **NIST publications** to assess WebAssembly's potential applications in secure software development.
- Authored research notes and technical summaries used for internal knowledge sharing.

Undergraduate Teaching Assistant

Purdue University — West Lafayette, IN | Aug 2024 – May 2025
- Guided 18+ students each semester through **Windows System Administration** projects and lab exercises.
- Evaluated and graded assignments, providing structured feedback for skill improvement.
- Maintained and troubleshooted lab systems to ensure uninterrupted student access and performance.

IT Specialist (Sergeant)

Republic of Korea Air Force — Gangneung, South Korea | Nov 2021 – Aug 2023

- Managed secure IT operations supporting **real-time air operations** and mission-critical systems.
- Repaired and configured computers under **internet, intranet, and private network** environments.
- Provided Tier-1 and Tier-2 technical support for personnel, following structured troubleshooting procedures.
- Led crisis management response for aviation communication systems, ensuring operational continuity.

Projects

Cybersecurity Home Lab (ESXi, Splunk, Firewalls) | *Jun 2025 – Present*

- Designed and operated a **multi-zone network** (DMZ, IntraNet, DevNet, SOCNet) with segmented security controls.
- Integrated **Splunk-based SIEM** for real-time monitoring and alerting using IDS and threat analysis tools.
- Configured **firewalls, IPS, and WAF** to simulate enterprise-level security posture.

Network Engineering Lab (Cisco, Juniper, HP Aruba) | *Aug 2025 – Present*

- Built a **multi-vendor network environment** using Cisco, Juniper, and HP Aruba hardware.
- Implemented **RIP routing, MSTP, and VRRP** to enable redundancy and reliable connectivity.
- Automated configuration backups via TFTP server and managed DHCP, NAT, and NTP services.

AWS Cloud Infrastructure Project (Amazon Cloud Quest) | *Jun 2025 – Present*

- Developed secure AWS infrastructure with **VPC peering, ALB + Auto Scaling Groups, and Multi-AZ RDS**.
- Implemented **IAM least privilege**, Security Groups, and NACLs for access control and compliance.
- Utilized **AWS Pricing Calculator** to ensure cost-efficient and scalable architecture.

Data Center Construction Project | *Jul 2024 – Aug 2024*

- Installed and configured server hardware; deployed OS images across multiple servers.
- Managed **power and network cabling** to optimize physical infrastructure layout.
- Verified hardware integration for **stable and efficient data center operations**.

Education And Certifications

Purdue University — West Lafayette, IN

Bachelor of Science in Cybersecurity and Network Engineering Technology

Expected Graduation: December 2026 | **GPA:** 3.81

- **Certified Linux Administrator** – Valid through April 2028
- **AWS Certified Cloud Practitioner** – Expected December 2025