

# Micaela Sinn

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Entry-level cloud and network engineering enthusiast with a strong foundation in **cloud infrastructure**, **network architecture**, and **cybersecurity**. Hands-on experience in building and securing AWS-based systems, designing network topologies, and conducting penetration testing in simulated environments. Skilled in **infrastructure automation**, **network security**, and multiple programming languages, with additional exposure to **machine learning**. Known for adaptability, a collaborative mindset, and the ability to work effectively in multicultural and technical environments. Eager to contribute to innovative cloud and security initiatives in a global setting.

#### **Education**

Hankuk University of Foreign Studies (03.2019 – 02.2025)

**B.A.** in German Interpretation and Translation **B.E.** in Computer and Electronic Systems Engineering

**Exchange Student** 

Julius-Maximilians-Universität Würzburg (08.2022 – 03.2023)

## **Relevant Couesework & Training**

**Cloud Security Engineering Programme (Gov.)** 

Jan – Jul.2025

AWS architecture, WAF, XDR, security monitoring.

**LG** Aimers — Data Intelligence Bootcamp

Jul - Aug.2024

defect detection ML project.

Wanted Learning – Information Security *Jun.2024* security fundamentals, threat analysis.

#### KG IT Bank – Programming & Infrastructure

May - Nov.20<u>23</u>

Python, Java, C/Data Structures, Linux fundamentals

## **University Coursework**

Data Structures, Web Programming, Computer Architecture, Information Security, Deep Learning, Mobile Programming, Capstone (Android), Game Programming (Unity), Social Network Analysis, Probability & Statistics.

# Languages

Korean (Native)

**English (Professional)** 

Japanese (Intermediate)

German (Intermediate)

Spanish, French, Swedish (Basic)

# **Technical Skills**

**Cloud & Security:** AWS (EC2, VPC, S3, RDS, Route 53, CloudFront, IAM, Auto Scaling, WAF, GuardDuty, CloudFormation)

**Networking**: Cisco Packet Tracer, VPN, VLAN, ACL, Firewall, DHCP

**DevOps & Automation**: Docker, Kubernetes (minikube), Jenkins, Terraform, Prometheus, Grafana, Zabbix, CloudWatch

**Security & PenTesting**: Kali Linux, Metasploitable, WebGoat, XDR, vulnerability scanning & exploitation, log analysis

**Programming**: Python, Java, C, C#, Kotlin, PHP, JavaScript, HTML/CSS

**Data Science**: Prophet, ETS, GAT, NumPy, Pandas, Matplotlib Other Tools: Git & GitHub, Vi, Ubuntu/CentOS

## **Certifications & Other**

OPIc (IH) Test ID: 2C9839005541 (Feb 2025)
WebGoat / Bandit Labs — Completion (Internal)

# **Key Projects**

#### AWS-Based Secure Architecture Project Jul 2025 · Team of 6

**Purpose**: Designed and deployed a two-tier hotel booking web service on AWS, integrating security and real-time monitoring.

**Tech Stack**: AWS (EC2, RDS, S3, Route 53, CloudFront, ElastiCache), WAF, ACL, Docker, GuardDuty, Prometheus, Grafana, Zabbix, CloudWatch.

**Role**: Network and security architecture design, WAF policy configuration, XSS/SQLi mitigation, logging & monitoring setup.

**Outcome**: Successfully defended against simulated web attacks and built an automated real-time security monitoring environment.

#### **Network Configuration Project (Cisco)** Mar 2025 · Team of 5

**Purpose**: Designed and simulated a secure, large-scale virtual network environment connecting multiple global branches (U.S., Berlin, Busan, Jeju).

Tech Stack: Cisco Packet Tracer, Site-to-Site VPN, Static Routing, VLAN, DHCP.

**Role**: Configured and integrated Berlin branch network and participated in overall topology design.

**Outcome**: Established stable communication between all branch nodes and the central data centre with secure VPN routing.

#### **ESXi-Based Security Monitoring & Intrusion Detection** Jun 2025 · Team of 6

**Purpose**: Conducted penetration testing on a vulnerable server to collect and analyse attack traces for defensive strategy development.

**Tech Stack**: Kali Linux, Metasploit, Metasploitable, password-cracking tools, log analysis utilities. **Role**: Led attack scenario execution, vulnerability analysis, and forensic log review.

**Outcome**: Identified exploitable vulnerabilities and documented actionable insights to strengthen defensive posture.

## Machine Learning Prediction Project Apr – Jun 2024 · Team of 3

**Purpose**: Analysed the impact of pandemics (H1N1 & COVID-19) on US stock indices and forecasted trends using ML forecasting models.

Tech Stack: Python, Graph Attention Network (GAT), Prophet, ETS

**Role**: Data preprocessing, model development, result interpretation and visualisation. **Outcome**: Achieved high forecasting accuracy (A  $\approx$  0.97) and produced interpretable visual models.

## **Experience**

# Assistant Teacher — J English Zone Jul 2020 – Jan 2025

Developed an Excel-based score management system adopted across the institute. Conducted grading and student feedback sessions for multiple levels.

Led substitute classes and ensured lesson continuity during staff absence.

**Teacher — Dongtan Eduplus** Dec 2018 – Oct 2019

Delivered personalised tutoring in multiple subjects.

 $\label{lem:progress} \textbf{Designed monthly evaluation materials and tracked student progress.}$ 

Facilitated academic consultations to support individual learning plans.

## **Leadership & Activities**

President, German Academic Journal "LUPE" 2019 – 2022

Led editorial operations and team management

#### **Exchange Student, Germany** 2022 –2023

engaged in academic collaboration and intercultural projects.