

FIGO FIGO

Network Engineering Student

London NW4 | figo.giri79@gmail.com | 07507791998 | figo.me.uk

PROFILE

Networking and Security undergraduate with hands-on experience building, configuring, and troubleshooting enterprise-style networks using Cisco hardware, FRR-based routing, and software-defined networking tools. Strong practical exposure to routing, switching, secure tunnelling, network automation, and fault recovery through university labs and an advanced final-year project focused on AI-driven self-healing networks. Seeking a network engineering, infrastructure, or network security role where I can apply strong troubleshooting discipline, lab-built technical depth, and a clear interest in resilient network design.

TECHNICAL SKILLS

- Routing and switching: IP routing, OSPF, BGP, iBGP route reflection, ECMP, VLANs, trunking, MSTP, EtherChannel, FHRP/VRRP concepts
- Security and tunnelling: DMVPN, IPsec, NHRP, ACLs, zero-trust micro-segmentation, basic firewall policy implementation
- Platforms and tools: Cisco Catalyst 3650 and 2960, Cisco ISR 4000-Series routers, Mininet, Ryu, OpenFlow 1.3, FRR, Cisco Modeling Labs, Linux, Wireshark, GCP
- Programming and scripting: Python, Bash, C, C++, Java, Flask, SSH-based automation

FINAL YEAR PROJECT

AI-Driven Self-Healing SDN Controller for Multi-AS BGP Retail Topologies | Middlesex University | 2025 - 2026

- Designed and implemented an end-to-end SDN testbed using Ryu, OpenFlow 1.3, Mininet, and FRR to model a four-AS retail network spanning London, core transit, Manchester, and Liverpool sites
- Built and validated BGP routing with iBGP route reflection and ECMP, achieving successful convergence across all 8 peering sessions in the evaluation environment
- Developed an Isolation Forest-based anomaly detection workflow that monitored per-host traffic behaviour and triggered automated OpenFlow quarantine with 0 false positive quarantine events on normal traffic
- Implemented zero-trust micro-segmentation across HR, IT, and Marketing network zones, achieving 100% enforcement across 19 tested inter-department flows
- Created a VRRP-style failover and cloud self-healing workflow that delivered mean gateway recovery of 101 ms and automatically restored a GCP-hosted Flask application after failure detection

ADDITIONAL TECHNICAL PROJECTS

Secure Edge-to-Cloud IoT Architecture | University Group Project | 2025 - 2026

- Contributed to the design of a secure multi-site IoT architecture connecting Raspberry Pi edge devices across farm, storage, and transport locations to AWS cloud services
- Supported site connectivity design using OpenVPN and secure MQTT-based data flows with mutual TLS into AWS IoT Core
- Worked across networking, device configuration, and secure connectivity components, with supporting exposure to Lambda, DynamoDB, S3, CloudWatch, GuardDuty, Docker, and EKS

Enterprise Routing and Secure Tunnelling | Independent Labs | 2024 - 2026

- Configured Cisco Catalyst switches and ISR routers in hardware-based lab environments, covering VLANs, trunking, MSTP, EtherChannel, OSPF, and structured troubleshooting
- Designed and implemented a hub-and-spoke DMVPN topology using IPsec and NHRP, integrating EIGRP over a static underlay and validating end-to-end connectivity across multiple branch networks

- Used CLI diagnostics such as show ip route, show ip eigrp neighbors, and show dmvpn to troubleshoot routing convergence, tunnel stability, and reachability issues

Network Device Recovery and Troubleshooting | Independent Labs | 2024 - 2026

- Recovered Cisco devices after IOS image corruption or deletion by reinstalling images and restoring configuration through CLI-based recovery procedures
- Worked through routing and connectivity failures methodically without resetting lab environments, building a disciplined troubleshooting approach
- Documented topologies and lab designs using Cisco Modeling Labs and supporting technical notes

EXPERIENCE

Student Assistant | Middlesex University | January 2025 - September 2025

- Supported first-year students in Computer Networks practical labs, helping them configure switches, routers, and core network services
- Explained technical concepts clearly and assisted with troubleshooting tasks during hands-on networking sessions

Shift Leader (part-time) | Tesco | January 2026 - Present

- Lead teams of 4-6 colleagues in a fast-paced customer-facing environment, building transferable skills in communication, prioritisation, and operational decision-making
- Maintain standards, respond to incidents, and coordinate tasks under time pressure, reinforcing reliability and calm problem-solving

EDUCATION

BSc Networking and Security (expected graduation) | Middlesex University | September 2023 - September 2026

- Relevant study includes advanced Linux, operating systems, networking with Python, Cisco networking, and practical labs covering switches, routers, cabling, and connectivity troubleshooting

PORTFOLIO

Portfolio website: figo.me.uk | Technical projects, GitHub, and LinkedIn available through the portfolio

References available upon request