

# Muhammad Saad Shabir

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## SKILLS

**Languages:** Go, Python, C/C++, SQL, JavaScript/TypeScript, Bash, YAML,  $\LaTeX$

**Tools & Technologies:** React.js, Next.js, Node.js, Docker, AWS, Git, Linux, eBPF, Prometheus, Grafana, Wireshark

**Networking & Security:** Cisco IOS, VLANs, Inter-VLAN Routing, OSPF, ACLs, TCP/IP, Zero Trust, Microsegmentation, PCI-DSS

**Concepts:** DevOps, Data Structures, Algorithms, Machine Learning, Cloud Computing, Policy-as-Code, Observability

## EXPERIENCE

### AriesTECH

Ottawa, ON

Network Technician

Jan 2024 – Apr 2025

- Installed, configured, and maintained Cisco routers & switches; designed Layer 2/3 segmentation (VLANs, trunking, inter-VLAN routing) and implemented static, RIP, and OSPF routing to optimize traffic flow and improve security across the LAN/WAN.
- Ensured approximately 99% network availability via proactive monitoring, rapid diagnostics (using packet-analysis / IOS tools), and regular preventative maintenance (firmware upgrades, ACL reviews, configuration backups).
- Automated routine network configuration tasks and documentation updates using Python scripts, reducing manual configuration time by 30% and minimizing human error during deployment windows.

## SELECTED PROJECTS

**ZTAP** | Go, eBPF, Kubernetes, Prometheus, Grafana, Policy-as-Code

- Built a zero-trust microsegmentation platform delivering kernel-level network policy enforcement on Linux (via eBPF) and macOS (via pf), with distributed cluster coordination and real-time hybrid cloud integration.
- Architected policy-as-code, RBAC, audit logging, and observability features (Prometheus metrics + Grafana dashboards) to provide scalable, NIST SP 800-207-compliant segmentation across on-prem and cloud environments.

**pci-segment** | Go, eBPF, CLI, Policy-as-Code, AWS/Azure Sync

- Created a CLI tool in Go for PCI-DSS-oriented network segmentation, applying policy validation and kernel-level enforcement (eBPF) to isolate cardholder-data environments and maintain compliance.
- Built features for cloud sync (AWS/Azure) and auditor-ready compliance reporting, enabling automated segmentation enforcement and evidence export to streamline security workflows.

**personal-ai-cli** | Python, Local LLM (Ollama), RAG, CLI

- Built a self-hosted personal AI chatbot enabling secure document querying of local files (txt, md, pdf) using retrieval-augmented generation with no cloud dependency for complete privacy.
- Implemented embedding generation, vector storage, and local LLM integration to enable fast, private document retrieval and search.

**cloud-netmapper** | Go, AWS SDK, Network Visualization, Security Analysis, CLI

- Built an AWS infrastructure discovery and visualization tool in Go that generates interactive network maps and exports detailed reports, enabling clear insight into VPC topology and resource relationships.
- Implemented real-time analysis of cloud networking configurations to detect misconfigurations and surface security issues, supporting multi-format reporting for architecture reviews and audits.

## EDUCATION

### Carleton University

Ottawa, ON

Bachelor of Information Technology - Network Technology

Expected Apr 2027

## COURSEWORK

**Network & Security:** Advanced Routing & Switching, Network Security, Automation, Network Management, Secure Mobile Networking

**Programming & Systems:** Data Structures, SQL & Databases, Web & Server Development, DevOps & System Foundations

**Emerging & Cloud Technologies:** Wireless Networks, Real-Time Systems, Cloud & Virtualization, IP Architectures