EHSAN ESLAMI

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Summary

Network Designer at TELUS with **4+ years** of experience spanning enterprise IP infrastructure, nationwide ISP operations, and AI-driven network R&D. Holds a Master's in Computer Engineering from Concordia University, alongside CCNP Enterprise, CCNA Security, and MCSE certifications. Deep expertise in L2/L3 routing (BGP, OSPF, MPLS) and scaling backbones across 300+ cities. Proven track record of modernizing network operations by deploying Python-based automation workflows and machine learning models for traffic classification and IP auditing.

Core Skills

Networking:	BGP, OSPF, MPLS, VLANs, STP, IP Address Management, DNS/RDNS, Active Directory, IPsec, QoS, Firewalls, VPNs, SD-WAN
Infrastructure:	Cisco (IOS/XE), MikroTik, Windows Server, Linux (Ubuntu), Docker
AI & Data:	Machine Learning, Deep Learning, PyTorch, LLM, Federated Learning
Automation:	Python (Netmiko, Scapy), Network telemetry, Bash Scripting, REST APIs, Git
Monitoring:	Zabbix, Grafana, Wireshark, NetFlow, packet capture/PCAP
Tools:	GNS3, EVE-NG, VMware Workstation, LaTeX, SolarWinds, Winbox
Operations:	IP Auditing, Technical Solution Design, Incident Management, Root Cause Analysis (RCA), Documentation (SOPs)
Soft Skills:	Teamwork, Communication, Ticketing
Languages:	English / French / Turkish / Persian

Professional Experience

Relevant Experience

Network Designer — Aug 2026 – Present
TELUS — Montreal, QC, Canada

- Executed enterprise IP address management and subnet auditing projects to ensure optimal network resource allocation.
- Developed network automation workflows utilizing Python and automation tools to audit reverse DNS infrastructure.
- Applied AI-driven methodologies to modernize network design and enhance IP address tracking accuracy.

Network Researcher — 2023 – 2026
Concordia University — Montreal, QC, Canada

- Designed and implemented an AI-driven network encrypted traffic classification tool using Python and ML.
- Developed automated data pipelines to process traffic, extracting critical features for performance and security analysis.
- Simulated enterprise-scale networks to test anomaly detection algorithms.

Network Operations Engineer — 2021 – 2023
Pishgaman Development Communications (National Tier-1 ISP) — Tehran, Iran

- Managed network operations for a nationwide ISP backbone serving 300+ cities, ensuring 99.9% uptime.
- Engineered solutions for complex connectivity issues (BGP, OSPF, MPLS), reducing MTTR for critical incidents.
- Monitored nationwide core/access networks, troubleshooting L2/L3 connectivity, analyzing traffic to identify root causes.

Additional Experience

IT Support Specialist — 2020 – 2021
Maktabkhooneh (Tier-1 Leading Platform) — Tehran, Iran

- Provided technical support and system administration for the users, ensuring reliable access.

Certifications

Cisco **2018 – 2021**
CCNP Enterprise | CCNA Routing & Switching | CCNA Security

Microsoft **2020**
MCSE (Windows Server 2016)

MikroTik **2019**
MTCNA | MTCRE | MTCUME | MTCTCE

Projects

FedSSL-NTC (Federated Self-Supervised Network Traffic Classifier)

- Designed a privacy-aware Federated Learning tool that enables decentralized edge routers to classify encrypted traffic.
- Integrated Self-Supervised Learning and Confident Learning, achieving **98% accuracy**.
- Supported by **two journal papers** published in the top-tier IEEE Open Journal of the Communications Society.

Network Draw (Automated Network Topology Mapper)

- Developed an automation tool that scans networks via SSH/SNMP to discover devices and link relationships. (Demo).
- Uses Netmiko for CLI interaction to generate L2/L3 topology maps, reducing manual documentation efforts for NOC teams.

Capture

- Lightweight traffic capture/analysis app with easy NIC selection and per-packet or per-flow details (Demo).
- Reinforces packet-level and flow-level troubleshooting proficiency and PCAP handling in Python.

Education

Concordia University **2023 – 2025**
Department of Electrical and Computer Engineering Montreal, QC

MASc in Computer Engineering (Supervisor: Prof. Walaa Hamouda), **Overall GPA:** 4/4.3
Thesis: Network Traffic Classification Using Self-Supervised Learning and Federated Learning.

University of Tabriz **2017 – 2022**
Department of Electrical and Computer Engineering Tabriz, Iran

BSc in Computer Engineering, Overall GPA: 3.82/4.3

Technical Research (Publications)

Network Traffic Classification Using Self-Supervised Learning and Confident Learning

E. Eslami, W. Hamouda, *IEEE Open Journal of the Communications Society, Open Access* (Oct. 2025).
DOI: 10.1109/OJCOMS.2025.3625534.

FedSSL-NTC: A Federated Self-Supervised Framework for Traffic Classification Under Privacy Constraints

E. Eslami, W. Hamouda, *IEEE Open Journal of the Communications Society, Open Access* (Nov. 2025).
DOI: 10.1109/OJCOMS.2025.3635689.

Teaching & Volunteer

Lead Volunteer **May 2026**
IEEE CCECE Conference Montreal, QC

Volunteer & Session Chair Reserve **June 2025**
IEEE ICC Conference Montreal, QC

Teaching Assistant **Winter 2024 – 2025**
Courses: Computer Networks and Protocols | Telecommunication Networks Concordia University

Instructor **Fall 2021**
Course: Comp TIA Network+ University of Tabriz