RAFIKUL MUTTAKIN

Network Engineer | IT Support | System Administrator

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PROFESSIONAL SUMMARY

Graduate of the Computer Network Engineering Technology Program, Department of Information Technology and Computer. Focused on Network Engineering, IT Support, and System Administration, with hands-on experience in designing and managing distributed network infrastructure, server administration, and IT operations. Possesses strong analytical, problem-solving, and adaptability skills, along with enthusiasm for leveraging technology to develop effective, efficient, and innovative solutions.

SKILLS

Networking & Infrastructure: Routing & Switching (Cisco & MikroTik), MikroTik RouterOS, TCP/IP, IPv4, VLAN, Inter-VLAN Routing, OSPF, Multi-Site Networking, Network Infrastructure, FTTH, Fiber-Optic Installation, Configuration.

Systems Administration & IT Operations: Linux Server Administration, Linux, Server Deployment, Web Server Management, IT Support, IT Operations, Remote Access, Backup & Disaster Recovery, System Maintenance.

Network Security & Monitoring: Network Monitoring (Zabbix & Cacti), SNMP, Network Security.

Programming & Technology: Laravel, Flutter, API Integration, Application Development, Internet of Things (IoT), MQTT, Embedded Systems, Hardware Integration, Socket Programming, MCP.

Analysis & Problem-Solving: Network, Hardware, and Software Troubleshooting, Root Cause Analysis, Analytical Skills, Problem-Solving, Data Processing, Technical Reporting, Technical Documentation.

Professional Skills: Teamwork, Time Management, Adaptability, Accountability, and Independence.

EXPERIENCE

DINAS KOMUNIKASI INFORMATIKA DAN PERSANDIAN ACEH — Banda Aceh, Indonesia
Network & System Engineer Intern — Feb 2025 – Jul 2025

- Monitored networks and servers using Cacti and Zabbix to help ensure IT infrastructure reliability.
- Configured, managed, and maintained Cisco and MikroTik network devices, including routing and switching, and troubleshot network and server connectivity issues.
- Managed Linux server administration, including system installation, configuration, updates, and data backup.
- Deployed PHP/Laravel-based applications and configured and managed web servers.
- Prepared technical documentation and operational reports related to networks and servers.

PT. TAMIRA DATA NUSANTARA — Aceh Besar, Indonesia
Network Technician Intern — Jul 2021 – Sep 2021

- Maintained FTTH infrastructure and troubleshot network connectivity issues.
- Installed FTTH services, performed fiber-optic splicing using a fusion splicer, and installed poles in newly developed areas.
- Collaborated with supervisors and field technicians to support daily ISP operations.

MEUTUAH KOMPUTER — Pidie, Indonesia
Computer Technician Intern — Sep 2021 – Nov 2021

- Installed, configured, and maintained operating systems and basic network systems.
- Performed hardware and software troubleshooting and maintenance.
- Assembled and upgraded PCs and performed data backup, restoration, and recovery.

EDUCATION

POLITEKNIK NEGERI LHOKSEUMAWE — Lhokseumawe, Indonesia
D4 Applied Bachelor's Degree (S.Tr.T.) | GPA: 3.60/4.00 — Sep 2022 – Sep 2026
Computer Network Engineering Technology – Department of Information Technology and Computer

SMK NEGERI 1 BANDAR DUA — Pidie Jaya, Indonesia
Computer and Network Engineering — Jul 2019 – Mar 2022

RELEVANT PROJECTS

Blockchain-Based Optimization of Distributed Network Routing

- Designed and implemented a trusted-node verification mechanism using Blockchain and the Proof of Work (PoW) algorithm within a distributed routing architecture.
- Integrated four MikroTik routers with an Ubuntu Server to validate node identities and manage dynamic routing using OSPF.
- Implemented Address List and firewall synchronization to isolate unverified nodes, achieving an average blockchain validation time of 1.9–3.1 seconds.

Implementation of Network Monitoring Using Cacti on the Diskominsa Aceh Network

- Built and configured a network monitoring system using Cacti on Ubuntu Server.
- Integrated the SNMP protocol to monitor the performance of MikroTik devices, DNS servers, and web servers.
- Implemented RRDtool and Spine to collect and visualize CPU, memory, disk, and network traffic data in real time and historically.

IoT-Based Waste-to-Fertilizer Processing Device – KMIPN VI, Jakarta State Polytechnic

- Designed an organic waste processing device that converts waste into solid and liquid fertilizer, supported by an IoT-based monitoring system.
- Integrated a NodeMCU with a DS18B20 temperature sensor, humidity sensor, and pH sensor to monitor composting conditions.
- Developed a real-time monitoring system using the Blynk application and an LCD to support remote monitoring of the processing.

Development of an IoT-Based Robot Car with MQTT Implementation and Flutter Application Integration

- Designed an organic waste processing device that converts waste into solid and liquid fertilizer, supported by an IoT-based monitoring system.
- Integrated NodeMCU with temperature, humidity, and pH sensors to monitor composting conditions.
- Developed a Blynk- and LCD-based system for real-time remote monitoring.

TRAINING & CERTIFICATIONS

- BNSP – Network Administrator, 2026
- IBM SkillsBuild – Data Analytics and AI, 2026
- PNL – Skills Development & Character-Building Training, 2026
- Bank Indonesia – Career Preparation, 2024
- BNSP – Content Creator, 2024
- Edspert – Web Development, IoT, Mobile Development, and Flutter, 2024
- ParagonCurp – Technology Industry Management, 2022
- PT Lintas Jaringan Nusantara – Pidie Jaya Service Subnetting, 2022

ACHIEVEMENTS

- Top Graduate (Cum Laude) – Lhokseumawe State Polytechnic, 2026
- Cryptocurrency Airdrop Reward – Tantin Exchanger, Cambodia, 2025
- Finalist, KMIPN VI – Internet of Things Category, Jakarta State Polytechnic, 2024
- Network Pioneers Cup – Telkom University, Bandung, 2024
- Winner of the Network Installation and Configuration Competition – PT Lintas Jaringan Nusantara, 2022

ORGANIZATIONS

- Generasi Baru Indonesia – Bank Indonesia, 2024 – 2025
- Information Technology and Computer Student Association, 2022 – 2026
- Indonesian National Association of Informatics and Computer Students, 2023 – 2025
- Polytechnic Linux Community, 2022 – 2026
- Polytechnic Robotic Community, 2024 – 2026
- Pidie Jaya Student Association, 2022 – 2026

ADDITIONAL INFORMATION

Languages: Indonesian (Native), English (Basic Working Proficiency).
Availability: Available for on-site work, willing to relocate, available for shift work and on-call duties.