



ROBERTON MANURUNG

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Lumbanjulu, Kab.Toba Samosir, Sumatera Utara

Third-year Computer Technology Students at Del Institute of Technology with strong skills in programming, operating system, IoT and computer networking. Experienced in analyzing, designing, and implementing efficient systems to meet evolving technologies needs. Passionate about tackling IT challenges and contributing to innovative technology project.

Education

SMK N 1 Lumbanjulu – Lumban Julu, North Sumatera	Jul 2019 - May 2022
High School Diploma focused on learning computer assembly, identifying hardware components, and basic networking. Completed a project building a LAN network using Mikrotik.	
Institut Teknologi Del – Sitoluama, North Sumatera	Aug 2022 - Present
Diploma III – Network Engineering, Studying computer-related fields, such as: Computer networking, Internet of Things, Programming, Information security, Web development, and virtualization.	

Project Experience

Ansible as a Server for Package Providers for Clients – System Administrator	Mar 2024 - June 2024
<ul style="list-style-type: none">Configured and automated package provisioning and installation for clients using Ansible, such as web servers and web servicesManaged application configuration and deployment centrally, improving efficiency by automating multiple server management..	
Product Design of an Automated Goods Sorter in SolidWorks– Mechanical Designer	Sep 2023 - Dec 2023
<ul style="list-style-type: none">Designed a mechanical prototype of an automated goods sorter using SolidWorksConceptualized a system for logistics or production applications, enabling fast and accurate sorting	
Water Tank Depth Gauge with Arduino Mega – Embedded Systems Engineer	Sep 2023 - Dec 2023
<ul style="list-style-type: none">Designed and built a water tank depth gauge using Arduino Mega, equipped with a depth sensor, buzzer, and LED indicators.Enabled real-time alerts when water levels reached set limits through visual and audio signals.	
Making Snake Game with C Language – Software Developer	Sep 2024 - Dec 2024
<ul style="list-style-type: none">Developed a Snake game in C language, incorporating synchronization concepts using semaphores and mutexes.Improved game stability and responsiveness by managing resource access for simultaneous processes.	
Building a WAN Network Topology – Network Engineer	Jul 2023 – Dec 2023
<ul style="list-style-type: none">Designed a WAN network topology connecting multiple LANs with EIGRP and OSPF routing protocols.Configured NAT to manage private IP communication securely and optimized routing for stability and efficiency.	
Water Depth Measurement Sensor – Electronics Engineer	Mei 2023 – Jul 2023
<ul style="list-style-type: none">Development of an IoT-Based Water Depth Measurement System for Real-Time Monitoring and Analysis	
Building a School Website with HTML, CSS, and JavaScript – Front End WebDeveloper	Aug 2023 – Dec 2023
<ul style="list-style-type: none">Developed a school website featuring a school profile, news, schedule, and activity gallery.Used HTML for structure, CSS for styling, and JavaScript to enhance interactivity.	

Organizational Experience

Del Cyber Security – <i>Member</i>	Sep 2023 - Present
<ul style="list-style-type: none">Enhanced teamwork and coordination in tackling challenges in the digital security field.Participated in Capture The Flag (CTF) competitions to hone analytical and problem-solving skills.	
Ansible as a Server for Package Providers for Clients – <i>System Administrator</i>	Mar 2024 - June 2024
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Sport Department BEM IT Del – <i>Member</i>	Sep 2023 - Present
The Sports Department is part of the IT Del Student Executive Board (BEM) which focuses on developing students' sports interests and talents. This department organizes various sports activities and competitions to improve health, fitness, and the spirit of sportsmanship in the campus environment.	
D3 Computer Technology Student Association – <i>Competition Division</i>	Oct 2022 - Sep 2024
The Competition Division focuses on internal activities, aiming to develop students' skills and potential in technology through various internal competitions and training. We organize competitions and workshops to improve technical skills, strengthen competitive spirit, and strengthen relationships between members. With these activities, we strive to create an environment that supports the development of students' abilities in technology as a whole within the study program.	

Skills

Soft Skill : Analytical Thinking, Problem Solving, Collaboration, Adaptability, Communication

Technical

- Network Engineering: WAN, LAN, EIGRP, OSPF, NAT Configuration, Csisco Packet Tarcer
- Virtualization: Ubuntu linux, Kali Linux, VMware, VirtualBox, Centos, Docker
- Internet of Things (IoT): Sensor Integration, MQTT, Arduinio Ide, Proteus
- Embedded Systems: Arduino, ESP32, Microcontroller Programming, Proteus
- Web Programming: HTML, CSS, JavaScript, Laravel, Bosstrap
- Cloud Computing: Ansible for Automation,VMware
- Mechanical Design: SolidWorks for Product Modeling