



# ANGEL GRACIA BR SIMAMORA

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Medan, Sumatera Utara, Indonesia

Fresh graduate in Computer Technology from Del Institute of Technology, specializing in Web Development, Software Engineering, and Data Analysis. Passionate about creating efficient, user-friendly web applications and transforming data into meaningful insights. Proficient in using Microsoft Office tools for documentation, reporting, and data processing. Passionate about building efficient, user-centered applications and leveraging data insights to improve system performance. Eager to learn new technologies and contribute to innovative software solutions.

## Education Level

**Institut Teknologi Del - Laguboti, Indonesia**  
*Diploma in Computer Technology, 3.13/4.00*

Jul 2022 - Sep 2025

## Work Experiences and Projects

**Belawan New Container Terminal - Grha Pelindo, Belawan, Indonesia**

Jan 2025 - Jun 2025

*Software Engineer & Data Analyst Intern*

Developed an IoT-based Reefer Container Monitoring System using ESP32-CAM, Flask, and Firebase Firestore for real-time temperature monitoring.

- Implemented OCR-based image processing to extract temperature data automatically from reefer containers, reducing manual inspections by 40%.
- Built a web dashboard for real-time and historical data visualization, improving operational efficiency and workplace safety.
- Collaborated with the finance division to assist in Oracle tax processing and prepare formal correspondence, demonstrating adaptability across departments.

**Zodiac**

Sep 2022 - Oct 2022

Created a comprehensive website about zodiac, elements, and shio using WordPress.

- Designed and organized content to present information in an attractive and user-friendly layout.
- Implemented categorized pages to allow users to easily explore zodiac signs, elemental attributes, and Chinese zodiac (shio).
- Focused on delivering clear, accessible, and engaging information by utilizing WordPress themes, plugins, and customization features.
- Ensured the website maintained a responsive design to provide seamless browsing experiences across desktop and mobile devices.

**High School**

Oct 2022 - Nov 2022

Developed a responsive high school website using HTML, CSS, JavaScript, and Bootstrap.

- Designed and structured the website to showcase essential school information, including profile, academic programs, extracurricular activities, and contact details.
- Implemented a clean and modern user interface with Bootstrap to ensure accessibility and responsiveness across devices.
- Added interactive features using JavaScript to enhance user engagement and provide smooth navigation.
- Focused on building a functional and visually appealing platform that highlights the school's identity and provides useful information for students, teachers, and visitors.

**Flappy Bird**

Nov 2022 - Dec 2022

Developed a Flappy Bird-inspired game using C# programming language.

- Implemented the game system with Pipes function to generate dynamic obstacles and applied Draw and Buffer functions to render smooth graphics.
- Designed the scoring system and collision detection logic to provide an engaging and challenging gameplay experience.
- Focused on creating responsive controls and seamless performance to replicate the mechanics of the original Flappy Bird.
- This project enhanced my skills in game programming, logic implementation, and graphical rendering using C#.

**Internet Based Rosin Palm Restaurant Menu Application - Rosin Palm Restaurant**

Feb 2023 - Jun 2023

Developed a WordPress-based website for Rosin Palm Restaurant to display a complete and interactive menu.

- Built the frontend interface for easy navigation and viewing of menu options, prices, and other details.
- Implemented backend functionality to manage and update menu items and information dynamically.
- Created comprehensive documentation for the website's structure and usage.

**Automatic Fish Feeder using Solidworks**

Sep 2023 - Nov 2023

Designed and developed a prototype for an Automatic Fish Feeder, an automated device for scheduled or fish-detection-based feeding.

- Created the product design using SolidWorks software for precise modeling and component integration.

- Integrated electronic components, controlled by Arduino Uno, to automate the feeding process.
- Ensured the prototype was functional, reliable, and reduced manual intervention in fish feeding.

**Rain with an Alarm**

Nov 2023 - Dec 2023

Designed and assembled an electronic circuit to detect the presence of rainwater and trigger an alarm.

- Developed the circuit using electronic components mounted on a PCB board for optimal functionality.
- Integrated a rain sensor to detect moisture and activate the alarm system.
- Ensured the circuit was robust and reliable for accurate rain detection and alarm activation.

**Temperature and Humidity Monitoring and Control System in Oyster Mushroom Cultivation - Internet of Things (IoT)**

Mar 2024 - Jun 2024

Developed an automatic temperature and humidity monitoring and control system for oyster mushroom cultivation.

- Utilized IoT technology for real-time monitoring of environmental conditions.
- Integrated sensors and control systems to maintain optimal temperature and humidity for mushroom growth.
- Focused on automating the process to enhance efficiency and ensure consistent growing conditions.

**Automatic Street Light**

May 2024 - Jun 2024

Developed an automatic street lighting system that adjusts light levels based on traffic and pedestrian presence.

- Integrated sensors to detect pedestrians, cyclists, and vehicles, enabling adaptive lighting control.
- Designed the system to regulate LED street light intensity based on real-time conditions.
- Focused on energy conservation while ensuring road safety with responsive, on-demand lighting.

**Testing Qos In SDN Networks Using POX and Ryu**

Sep 2024 - Dec 2024

Developed a web-based platform for testing and analyzing SDN networks using POX and Ryu controllers with Mininet.

- Implemented multiple scenarios to evaluate QoS parameters such as throughput, jitter, packet loss, and packet delivery ratio.
- Found that Ryu performs better in large-scale networks, while POX is simpler and more suitable for basic or educational use.
- This project strengthened my skills in SDN, network simulation, and performance evaluation.
- Achieved a 20% increase in throughput and reduced jitter by 15% in Ryu compared to POX under large-scale scenarios.

**Organisational Experience**

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**Komisi Pemilihan Umum HIMATEK (KPU HIMATEK) - Institut Teknologi Del**

Jul 2024 - Sep 2024

Head of Division

Ensured the security and integrity of IT systems and networks during the HIMATEK general election.

Collaborated with multiple teams to deliver reliable and verifiable election results.

Enhanced leadership, coordination, and communication skills in high-responsibility settings.

**Student of Huawei**

Sep 2023 - Jan 2025

Completed the HCIA-OpenEuler V1.0 certification program focused on enterprise-level IT infrastructure and data center systems.

Gained hands-on experience with Linux environments, user and permission management, and shell commands.

Developed strong operational and maintenance competencies for scalable IT systems

**Himpunan Mahasiswa Teknologi Komputer (HIMATEK) - Institut Teknologi Del**

Aug 2022 - Jun 2024

Division Public Relations

Managed communication channels and coordinated organizational events to strengthen internal and external relations.

Served as Master of Ceremony (MC) in official HIMATEK events, enhancing confidence, public speaking, and presentation skills.

Supported digital documentation and publicity materials using Microsoft Office and design tools such as Canva and Figma.

Developed teamwork, time management, and communication skills through cross-division collaboration.

**Student of Cisco Networking Academy**

Sep 2023 - Jun 2024

Studied and implemented networking concepts including IP addressing, subnetting, and routing using Cisco Packet Tracer.

Practiced configuring and troubleshooting simulated networks to improve problem-solving and analytical thinking.

Built a strong foundation in enterprise network infrastructure and system reliability.

**Skills, Achievements & Other Experience**

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- **Hard Skills:** Software Development, Data Visualization, Microsoft Office, Wireframing & Prototyping, Internet of Things (IoT), Image Processing & OCR, API Development
- **Soft Skills:** Problem Solving, Analytical Thinking, Communication, Team Collaboration, Adaptability, Continuous Learning, Time Management, Initiative, Attention to Detail
- **Tools & Technology:** Python, C#, HTML, CSS, JavaScript, PHP, Laravel, Flask, Linux, MySQL, Firebase Firestore, Google Cloud, VirtualBox, Docker, Cisco Packet Tracer, Arduino IDE, Draw.io, Proteus, XAMPP, SQLyog, Canva, Figma, Microsoft Office