



# MARIHOT JOSUA TAMBUNAN

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Balige, North Sumatera, Indonesia

I am a sixth-semester Software Engineering Technology student at Institut Teknologi Del with strong interests in Data Analysis, Data Science, and Data Engineering. I have completed multiple data projects using SQL, Python, and data visualization tools. With a solid academic background and practical experience, I am motivated to contribute as a Data Specialist in a dynamic environment.

## Education Level

Institut Teknologi Del - Laguboti, North Sumatera, Indonesia Laguboti, North Sumatera, Indonesia

Aug 2022 - Sep 2026 (Expected)

Bachelor of Applied Software Engineering Technology, 3.29/4.00

- Following the Course: Data Analyst, Data Science, Machine Learning, and Data Engineering
- Actively participating in various organizations on campus such as: MPM, HIMAPRO, Komisi Pemilihan Umum (KPU) Institut Teknologi Del

## Work Experiences(Projects)

Coding Camp by DBS Foundation

Jan 2025 - Present

Machine Learning Engineer Intern

Participated in an intensive coding bootcamp focused on data science, data analyst and machine learning technologies, gaining comprehensive hands-on experience

- Mastered SQL and Python for data analysis, including the use of Pandas, NumPy, and Matplotlib libraries for data processing and visualization
- Developed Machine Learning capabilities from basic concepts to practical implementation, as well as Deep Learning fundamentals for model development
- Applied end-to-end data workflow from data preprocessing, feature engineering, to model evaluation and deployment

Development of Agricultural Potential Data Collection Application for North Tapanuli Region Web-based System - Toba, Indonesia

Jan 2025 - Jun 2025

Development of Agricultural Potential Data Collection Application for North Tapanuli Region Web-based System

- Designed database architecture for agricultural data management including farmer groups and production tracking using MySQL and PHP
- Built automated data processing system for real-time agricultural statistics and reporting dashboard
- Developed data integration solutions for streamlined agricultural data collection and comprehensive regional planning reports

MediVize: Web-Based Drug Information System with Image Classification - Indonesia

Apr 2025 - Jun 2025

This project developed a web-based application, MediVize, to identify and provide drug information by classifying drug packaging images

- Implemented a machine learning model using YOLOv11 for accurate classification of drug packaging images
- Conducted comprehensive data cleaning, preprocessing, and image augmentation with NumPy to enhance training data variation
- Evaluated model performance based on accuracy and other detection metrics to ensure reliable drug identification

Balige Traditional Market - Web-based Marketplace Platform - Toba, Indonesia

Jan 2024 - Jun 2024

This is the second final project which aims to help the public find information regarding the Balige Traditional Market

- Designed scalable database architecture using MySQL for multi-vendor marketplace data management
- Built automated data processing workflows for inventory management and order tracking using PHP and Laravel
- Developed data integration solutions for vendor onboarding and automated reporting systems

Traditional Balige Market E-Commerce Using Microservice Architecture - Toba, Indonesia

Apr 2024 - May 2024

This project aims to develop a scalable e-commerce platform for traditional market vendors using microservices architecture to efficiently connect sellers and buyers

- Designed microservices architecture with 5 independent services (Authentication, Seller, Product, Category, Review) using Go and Laravel
- Built distributed data processing system with separate service endpoints for scalable vendor and product management
- Developed API-based communication system between microservices for independent deployment and enhanced system reliability

IT Del Students Learning Style Prediction using Filder-

Oct 2024 - Dec 2024

**Silverman Learning Style Model - Toba, Indonesia**

This project aims to develop a machine learning model to predict student learning styles based on the Felder-Silverman Learning Style Model for personalized education approaches

- Implemented data preprocessing pipeline with StandardScaler and SMOTE for handling imbalanced datasets
- Developed machine learning models (K-Means, SVM, Random Forest) achieving 97% accuracy in learning style classification
- Applied hyperparameter tuning using GridSearchCV to optimize model performance and improve prediction metrics

**Development of Rumata Coffee's Digital Marketing Website - Toba, Indonesia**

Jan 2023 - Jun 2023

This is the first final project that aims to be an information system that will introduce Rumata Coffee's products and services to a wider digital audience.

- Designed database architecture with multi-level user access management using Native PHP and MySQL
- Built automated CMS for product management, image upload, and customer feedback processing
- Integrated external APIs (Google Maps, WhatsApp) for seamless data flow and system connectivity

**Organisational Experience**

**MPM - Del Institut of Technology**

Sep 2024 - Present

Head of Public Relations, Publication and Career Commission

Majelis Permusyawaratan Mahasiswa

- Led strategic communication, publication, and digital media management to enhance organizational branding and stakeholder engagement
- Coordinated career development programs, networking events, and comprehensive documentation systems

**KPU - Del Institut of Technology**

Apr 2024 - Nov 2024

Member of Security and Infrastructure Division

Komisi Pemilihan Umum

- Managed security protocols and infrastructure systems for safe and transparent campus election processes
- Coordinated facility management and logistical support for election activities and venue preparation

**HIMAPRO - Del Institut of Technology**

Sep 2023 - Sep 2024

Member of Event Division

Himpunan Mahasiswa Teknologi Rekayasa Perangkat Lunak

- Responsible as MC at fun game events
- Supported the development of event concepts, managed time, coordination with other related divisions and managed the set budget to ensure the success and success of the event

**GDSC - Del Institut of Technology**

Sep 2023 - Present

Member

Google Developer Student Club

- Worked with peers on group projects, applying Google technologies to solve real-world challenges
- Engaged in hands-on sessions, such as coding workshops and project-building, to strengthen technical skills

**Certification & Skills**

- **Certification** 🌟 (2025): Machine Learning Terapan | Dicoding
- **Certification** 🌟 (2025): Belajar Dasar Visualisasi Data | Dicoding
- **Certification** 🌟 (2025): Belajar Analisis Data dengan Python |Dicoding
- **Certification** 🌟 (2025): Belajar Fundamental Deep Learning |Dicoding
- **Certification** 🌟 (2025): Belajar Machine Learning untuk Pemula |Dicoding
- **Certification** 🌟 (2024): Data Science Project: Predictive Analytics | Eduwork.id (PT Talenta Sinergi Group)
- **Certification** 🌟 (2024): Python Fundamental for Data Science | DQlab
- **Certification** 🌟 (2024): Data Engineering Project: Taxi Travel Data Analysis | Dibimbing.id
- **Data | Database:** Tableau, Power BI (Microsoft) | Excel, Microsoft SQL server, MySQL, PostgreSQL, MongoDB, Hadoop, Cassandra
- **Programming Languages:** Python, Java, C, PHP, JavaScript, Go
- **Back-End Development:** PHP(Native&Laravel), RESTful API (Postman)
- **Front-End Development:** JavaScript, HTML, CSS, Bootstrap, Tailwind CSS
- **UI/UX & Design:** Figma, Canva, Adobe XD, Wireframing, Prototyping, Usability Testing, Design Thinking
- **Project Management:** Agile, Scrum, Sprint Planning, Trello, Git
- **Soft Skills:** Problem Solving, Communication Skills, Adaptability, Time Management, Teamwork, Attention to Detail, Analytical Thinking,

