

# Felix Natanael Butarbutar

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Diploma (D3) Information Technology student at Institut Teknologi Del with hands-on experience as a Part-time Web Developer at PT LPK Mori Silangit. Built and deployed a production-ready company profile and online student registration system with multilingual support (Japanese, English, Indonesian) and responsive UI. Comfortable working on both frontend and backend to turn business requirements into working features. Currently seeking a Software Engineer Internship where I can contribute to real projects, improve my skills, and learn from experienced engineers, and I am flexible to take on Backend, Frontend, or Fullstack Software Engineer intern roles.

## WORK EXPERIENCE

### PT LPK Mori Silangit

North Sumatera

#### *Part-time Web Developer*

August 2025 – December 2025

- Developed a company profile website integrated with an information system and an online student registration platform, enabling prospective students to register directly through the website.
- Implemented a multilingual website (Japanese, English, Indonesian) with dynamic language switching.
- Designed and built responsive UI layouts aligned with the company's branding
- Collaborated with the internal team to refine business requirements and deliver production-ready features.

## EDUCATION

### Del Institute of Technology

Toba, North Sumatra

*Associate Degree in Information Technology* (3.35/4.00)

September 2023 – September 2026

## ORGANIZATIONAL EXPERIENCE

### Facilities and Infrastructure Division

Himpunan Mahasiswa Teknologi Informasi IT Del

#### *Member*

August 2024 – June 2025

### Del Software Development Club (DCSC)

IT Del

#### *Member*

August – December 2024

## SKILLS

- **Programming Language:** C, C#, PHP, Java, Python, Golang, JavaScript, TypeScript, Dart,
- **Framework & Libraries:** Laravel, FastAPI, ReactJs, Flutter, Flask, NodeJs, NextJs, Streamlit
- **Testing Tools:** Manual Testing, Selenium, Katalon
- **Database Management:** MySQL, PostgreSQL, MongoDB
- **Clouds:** Amazon Web Services & Google Cloud Service
- **Others:** Git, Github, Trello, Software Development Life Cycle (SDLC), BPMN, Bizagi, Figma, Balsamic, CRISP-DM, Business Model Canvas (BMC), Market & Stakeholder Analysis, Creative & Entrepreneurial Thinking

## Achievements

- **Achievements** (2025): 3rd Winner, Coding Day Competition – Faculty of Vocational Studies (2025)

## Project Undertaken During Study

1.	<b>Project Name</b>	:	Integration of Whisper, T5-Base, and DeBERTa v3-Base for Grammar and Coherence Evaluation in a Web-Based IELTS Speaking Application
	<b>Period</b>	:	August 2025 - Januari 2026
	<b>Description</b>	:	A web-based automated evaluation system for IELTS Speaking that integrates multiple NLP and speech processing models to analyze spoken language. Audio input is processed using Whisper for speech-to-text conversion, T5-Base is used to perform grammatical correction, and DeBERTa v3-Base evaluates semantic coherence between prompt and response. The system is deployed using FastAPI as the model-serving backend and Next.js as the frontend interface, returning structured scoring and corrected output to users.
	<b>Tools &amp; Skills</b>	:	Google Colab, Python, FastAPI, Next.js, Whisper, REST Api Integration, PyTorch / Hugging Face Transformers, Machine Learning Model Deployment
	<b>Role</b>	:	Machine Learning Engineer
	<b>Responsibility</b>	:	<ol style="list-style-type: none"> <li>1. Data collection</li> <li>2. In models built using the python language</li> <li>3. Integrations model to frameworks.</li> </ol>
2.	<b>Project Name</b>	:	IT Del Student Information Management System
	<b>Period</b>	:	January 2025 - July 2025
	<b>Description</b>	:	Built a web-based student information management system using Laravel + Inertia.js + React with 24 functional features and 4 system roles. Enabled students to access real-time campus information (BEM, academic updates, and announcements), improving information
	<b>Tools &amp; Skills</b>	:	Laravel Inertia, PostgreSQL
	<b>Role</b>	:	Full Stack Developer
	<b>Responsibility</b>	:	<ol style="list-style-type: none"> <li>1. Developed the full-stack architecture using Laravel and Inertia.js, integrating backend logic with reactive frontend components</li> <li>2. Designed a secure database schema in PostgreSQL to support scalable data management for 24 features.</li> <li>3. Implemented Role-Based Access Control (RBAC) to ensure secure authentication and authorization for 4 distinct system roles.</li> <li>4. Built responsive user interfaces with React, ensuring a seamless experience across different devices.</li> </ol>
3.	<b>Project Name</b>	:	Student Stress Level Prediction Using Ensemble 1D-CNN and XGBoost
	<b>Period</b>	:	August 2025 – December 2025
	<b>Description</b>	:	A machine learning project designed to predict student stress levels (Distress, Eustress, No Stress) using questionnaire-based dataset. The model integrates deep learning (1D-CNN) feature extraction with XGBoost classification to improve accuracy, macro-F1 score, and performance on minority stress categories. The system is deployed locally via Streamlit with automatic CPU/GPU switching.
	<b>Tools &amp; Skills</b>	:	Python, Streamlit, Flask, XGBoost, Pandas, NumPy, TensorFlow, Keras
	<b>Role</b>	:	Machine Learning Engineer & Full-Stack Model Deployment
	<b>Responsibility</b>	:	<ol style="list-style-type: none"> <li>1. Conducted data preprocessing, feature engineering, and SMOTE balancing.</li> <li>2. Designed and trained a 2-Block 1D-CNN model for embedding extraction.</li> <li>3. Integrated CNN embeddings with optimized XGBoost ensemble.</li> <li>4. Performed model performance analysis using classification report &amp; confusion matrix</li> <li>5. Built and deployed an interactive Streamlit web application</li> </ol>
4.	<b>Project Name</b>	:	Design and Development of the DelCheckIn Application

	<b>Period</b>	:	Augustus 2024 - December 2024
	<b>Tools &amp; Skills</b>	:	DelCheckIn is a mobile application designed to facilitate and digitize the attendance process for students and staff at Institut Teknologi Del. The system simplifies check-in and check-out activities using real-time authentication and centralized data storage.
	<b>Role</b>	:	Flutter (Dart), Firebase Authentication, Firebase Firestore, Firebase Storage, Provider / State Management
	<b>Responsibility</b>	:	Mobile Application Developer
5.	<b>Project Name</b>	:	Cinema Ticketing & Seat Reservation System
	<b>Period</b>	:	January 2024 - May 2024
	<b>Description</b>	:	A desktop-based cinema ticketing application designed to manage movie schedules, process ticket sales, and handle dynamic seat selection. The system allows users to select available seats, calculate total payments automatically, and print ticket receipts. It also includes an admin module for managing movie data and showtimes.
	<b>Tools &amp; Skills</b>	:	Java, Eclipse IDE, PostgreSQL, JDBC, OOP, Java Swing
	<b>Role</b>	:	Backend & Frontend Developer
	<b>Responsibility</b>	:	<ol style="list-style-type: none"> <li>1. Developing ticket sales features with dynamic seat selection and availability validation</li> <li>2. Implementing payment calculation mechanism including total price and ticket quantity</li> <li>3. Creating ticket printing module for customer receipt generation</li> <li>4. Designing database structure and integrating with PostgreSQL</li> <li>5. Implementing movie data management (create, update, delete showtimes)</li> <li>6. Building a graphical user interface using Java Swing</li> </ol>
6.	<b>Project Name</b>	:	Toba Cultural & Culinary Tour - Toba Essence: Heritage You Can Taste
	<b>Period</b>	:	Oktober 2025 - December 2025
	<b>Description</b>	:	A business innovation project focused on developing a tourism service concept that integrates cultural experiences and indigenous culinary exploration around Lake Toba. The project includes designing a comprehensive Business Model Canvas and creating a prototype digital platform to support cultural tourism engagement.
	<b>Tools &amp; Skills</b>	:	Figma, Business Model Canvas (BMC), Market & Stakeholder Analysis, Creative & Entrepreneurial Thinking, Branding & Concept Development
	<b>Role</b>	:	Business Concept Strategist
	<b>Responsibility</b>	:	<ol style="list-style-type: none"> <li>1. Conducting market research and validating business opportunities in Lake Toba tourism sector</li> <li>2. Creating Business Model Canvas including value proposition, customer segments, channels, cost structure, and revenue streams</li> <li>3. Presenting business concept and prototype demo to academic evaluators and stakeholders</li> </ol>
7.	<b>Project Name</b>	:	HKBP Peanajagar Church Information System Website
	<b>Period</b>	:	January 2024 - May 2024
	<b>Description</b>	:	A web-based information system developed to support digital church management and improve access to information for congregation members. The application provides two user roles: Admin (Church officer) and members, enabling administrators to manage all church-related data, while congregation members can view information through the public website interface.
	<b>Tools &amp; Skills</b>	:	Laravel Framework (PHP), MySQL, Bootstrap / Tailwind CSS, Bootstrap / Tailwind CSS
	<b>Role</b>	:	Web Developer

	<b>Responsibility</b>	:	<ol style="list-style-type: none"><li>1. Designing system architecture, database structure, and user access levels</li><li>2. Implementing authentication for Admin and Jemaat</li><li>3. Developing dashboard admin for church staff to manage:<ul style="list-style-type: none"><li>- Financial records (keuangan &amp; kas gereja)</li><li>- Church news &amp; announcements</li><li>- Worship schedules (jadwal ibadah)</li><li>- Church committee members (pengurus gereja)</li><li>- Photo gallery &amp; documentation</li><li>- Membership data (informasi jemaat)</li></ul></li></ol>
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