

IZE RONAULI SITORUS

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Parmaksian, Toba, North Sumatera

Final-year Information Technology student with strong interest in Software Engineering, focusing on designing, developing, and maintaining scalable and efficient applications. Experienced in writing clean, structured, and maintainable code while collaborating in project-based environments. Also highly engaged in software quality assurance, both manual and automated, using tools such as Selenium, Cypress, Katalon, and JUnit. Interested in software development workflows and supporting end-to-end implementation. Additionally drawn to data analytics, utilizing tools like Excel, Looker Studio, SQL, and Python to support decision-making and problem-solving. Has interest in business analysis, requirement gathering, and preparing structured documentation aligned with user needs and project goals. In UI/UX design, experienced in creating wireframes, user flows, and user-centered interface layouts using Figma, supported by knowledge of layout structure, spacing, typography, and color principles. Detail-oriented, analytical, and motivated to contribute effectively within collaborative project environments.

Education Level

Institut Teknologi Del - Sitoluama, Laguboti, Toba, North Sumatera Aug 2023 - Sep 2026 (Expected)

Diploma in Information Technology, 3.29/4.00

- Relevant Courses: Programming Basics, Software Engineering and Design, Website Development, Algorithms & Data Structures, User Experience Design, Probability and Statistics, Object-Oriented Programming, Database System, Mobile Application Development, Scalability & Data Analytics, Computer network, IoT Technology, Software Testing and Quality, Distributed Applications & Virtual Services, Software Security, Cloud Computing System,

SMA N 1 Parmaksian - Parmaksian, Toba, North Sumatera Jul 2020 - Apr 2023

Senior High School, Science Major

Project Experiences

YOLOv11 Implementation for Mobile-Based Detection of Organic and Inorganic Waste Objects - Laguboti, Toba, North Sumatera Utara Aug 2025 - Present

- Collected and annotated a dataset of 1,500+ organic and inorganic waste images for model training.
- Trained YOLOv11 using 5 architecture combinations across 50 training sessions to optimize detection accuracy.
- Documented the entire project using the CRISP-DM methodology.

Classification of Glioma Brain Tumors Using MLP and Random Forest Algorithms - Laguboti, Toba, North Sumatera Utara Oct 2025 - Dec 2025

- Built and tuned ensemble models combining MLP and Random Forest for accurate classification of LGG and GBM, using stratified train-test split (80:20) to maintain class balance.
- Documented the entire project following CRISP-DM methodology

TobaGrow - Toba, North Sumatera Oct 2025 - Dec 2025

UI/UX Designer

- Designed wireframes, user flows, and high-fidelity prototypes in Figma to support the platform's core features.
- Collaborate with a 5-person team to improve visual consistency and usability, supporting the Key Activities and Key Resources outlined in the BMC.

Development of Kawalptnku Information System - Laguboti, Toba, North Sumatera Feb 2025 - Jul 2025

Quality Assurance, UI/UX Designer, Project Documenter

- Developed an academic prep platform with 10+ modules and 30+ features
- Conducted UI/UX evaluations and usability testing, providing improvement recommendations.
- Conducted manual and automated testing with 50+ test cases, verified system workflows, and reported bugs while collaborating with a 5-member developer team.
- Managed project documentation including feature specs, workflow diagrams, and QA reports.

Evaluation and Redesign of Rumah Kreatif Toba Application - Toba, North Sumatera May 2025

UI/UX Designer

- Conducted heuristic evaluations and redesigned the interface to improve visual consistency, user experience, and navigation flow.
- Created wireframes, user flows, and high-fidelity prototypes to support a more intuitive and user-friendly design.

Design and Development of Movie Catalog Application - Laguboti, Toba, North Sumatera Nov 2024 - Dec 2024

Quality Assurance, UI/UX Designer and Project Documenter

- Designed UI/UX for a movie catalog app, including layout, navigation, and interactive components.
- Conducted API testing for TMDb integration to ensure data accuracy and system stability.
- Collaborated with a 5-member team and maintained project documentation covering requirements, workflows, and QA reports.

Development of Drg. Nancy Hutabarat's clinic website - Porsea, Toba, North Sumatera Feb 2024 - Jul 2024

Quality Assurance, Project Documenter, UI/UX Designer

- Designed and executed 20+ manual test cases to ensure website functionality, usability, and performance.
- Validated workflows and reported bugs while collaborating with a 4-member developer team.
- Supported UI/UX activities and maintained clear project documentation to ensure a consistent, user-friendly experience.

Warehouse Management System - Laguboti, Toba,North Sumatera Utara Nov 2024 - Dec 2024

Developer & Project Documenter

- Developed a Warehouse Management System with core modules covering user authentication, inventory management, warehouse management, and stock transaction tracking.
- Applying OOP concepts (abstraction, encapsulation, inheritance, polymorphism, interface, exception handling) to build applications with structured and maintainable code using Java and JavaFX. Implementing 4 CRUD features (Create, Read, Update, Delete) and managing data using MySQL Database as a storage backend.

Organisational Experience

Information Technology Student Association - Laguboti, Toba, North Sumatera Dec 2025 - Present

Head of public relations and publication division

- Coordinated a team of 5–10 members, ensuring effective collaboration and task execution.
- Distributed important information to 100+ students through optimized communication flows.
- Supporting content creation and visual design specifically for himatif.itdel Instagram, ensuring consistent branding and effective communication for association activities.

Information Technology Student Association - Laguboti, Toba, North Sumatera Sep 2024 - Nov 2025

Deputy Head of Public Relations and Publication Division

- Leading the coordination of a team of 8 members, managing communication strategies that reach more than 100+ students, ensuring the quality of visual publications on more than 10+ posters/posts, and collaborating on content creation, publication design, and effective information distribution.

Committee for the Cadre Program of the Information Technology Student Association 2025 - Laguboti, Toba, North Sumatera Oct 2025

PIC (Person in Charge)

- Serving as PIC for the 2025 Cadre Program at the Information Technology Student Association, coordinating activities for 50+ new students, leading team responsibilities, and ensuring smooth and successful program execution.

Inauguration, Dies Natalis & Graduation Committee - Laguboti, Toba, North Sumatera Sep 2025

Exhibition division

- Responsible for preparing and managing exhibition areas, coordinating participants, organizing booth layouts, and ensuring smooth execution during the event with over 100+ visitors.

Del Dance Drama Club - Laguboti, Toba, North Sumatera Aug 2024 - Present

Member

- A creative platform for self-expression and personal growth through regular practices and performances. Developed confidence, creativity, and time-management skills, with participation in 10+ stage performances.

Committee for the Cadre Program of the Information Technology Student Association 2024 - Laguboti, Toba, North Sumatera Oct 2024





PIC (Person in Charge)

- As PIC of the 2024 Cadre Program at the Information Technology Student Association, I led and coordinated activities for 50+ new students, guided team members, and ensured smooth and successful program execution.

Skills

- **Soft Skills**: Problem Solving, Critical Thinking, Analytical Thinking, Time Management, Collaboration & Teamwork ,Responsibility, Communication, Creativity & Innovation
- **Hard Skills**: Basic Programming (HTML, CSS, JavaScript, C, Java, Golang, Python,Dart, PHP), Laravel, React, Flutter | Manual Testing,

Automation Testing (Selenium, Cypress, Katalon, JUnit), Test Case Design | UI/UX Design, Wireframing, Prototype, Figma, Canva, Balsamiq Wireframe, Scene Builder, System Usability Scale, Heuristic Evaluation, Business Model Canvas | MySQL, PostgreSQL, SQLyog | Microsoft Word, Microsoft Excel, Trello, Looker Studio, PowerBI, Git, Github

- **Language:** English-Intermediate , Bahasa Indonesia-Native
- **Unified Modeling Language (UML):** Use Case Diagram, BPMN, Activity Diagram, Class Diagram, Sequence Diagram, Conceptual Data Model (CDM), Physical Data Model (PDM),
- **Certificate**  (2025): Learn Quality Assurance Basics for Tech Companies (Udemy)
- **Certificate**  (2025): Quality Assurance (Sanbercode)
- **Certificates**  (2025): Completed foundational courses from Dicoding, including Basic Data Science, Introduction to Java Programming, Programming Logic 101, and Fundamental Programming for Developers.
- **Certificate**  (2025): Code Generation and Optimization Using IBM Granite
- **Certificate**  (2025): Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate
- **Certificate**  (2025): Oracle Cloud Infrastructure 2025 Certified Data Science Professional
- **Certificates**  (2025): Microsoft Power BI Data Analyst
- **Certificate**  (2025): Introduction to Data Analytics (Coursera)
- **Certificate**  (2025): Business Analysis: Key Definitions & Strategy Analysis
- **Certificate**  (2025): Software Engineering 101: Plan and Execute Better Software.