

MARITZA KHANSA SALSABILLA

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I am an undergraduate student majoring in Mechatronics and Artificial Intelligence with a strong interest in software development and intelligent systems. I have a solid foundation in programming, algorithms, and system integration, with proficiency in languages such as Python, C, C++, HTML, CSS, and JavaScript. My technical skills include backend development, database management, and real-time application design using tools like MySQL and Streamlit. I am also familiar with working in Linux environments and using bash scripting for automation. I am passionate about building efficient, scalable, and reliable software solutions, and continuously seek to expand my knowledge.

EDUCATION

Mechatronics and Artificial Intelligence, Universitas Pendidikan Indonesia

2022-Present

GPA: 3.68 / 4.00

Relevant Courses: Object-Oriented Programming | Data Structures and Algorithms | Computer Networks | Parallel Computing | Data Science | Cloud Computing | Artificial Intelligence | Machine Learning | Expert Systems

INTERNSHIP/WORK EXPERIENCE

Research and Development Intern,

Feb – July 2025

PT. Omron Manufacturing of Indonesia

- Developed a full stack inventory management web app using Python and Streamlit integrated with RFID and barcode scanners for real-time stock tracking and deployed the system across two divisions.
- Configured 14 units of Raspberry Pi client-server system for real-time production instruction app (WGS), utilizing Linux and bash scripts for automation and service setup.
- Handled network setup (static IP, LAN), MySQL server-client integration, and system optimization using parallel task execution across nodes.

ORGANIZATION EXPERIENCE

Staff of Communication and Information Technology (Kominfo) Department,

Feb – Nov 2024

HIMATRONIKA-AI

- Led as the Head of the Visual Communication Design (DKV) Team, overseeing the creation of visual content for social media and contributed to achieve a 75% increase in engagement.
- Managed to design on-time for content under tight deadlines using Canva
- Collaborated with team members to translate ideas and scripts into visual concepts.

COMMITTEE & VOLUNTEER EXPERIENCE

Staff of Cyber Archives (Secretary),

Aug – Oct 2024

ALGORITHMIA FEST 2024

- Drafted and prepared comprehensive event proposals, ensuring clarity and alignment with event objectives.
- Organized and managed data effectively using Microsoft Excel to streamline event planning

**Deputy Head of First Aid Division,
METASTRO 2023**

Sept – Oct 2023

- Proactively responded to emergency situations during new student training events, ensuring the safety and well-being of all participants.
- Coordinated with team members to provide immediate medical assistance and implement first aid

West Java (Bandung) Delegate,

Aug – Nov 2019

Indonesia Student & Youth Forum (ISYF) XI

- Participated in a national gathering event, bringing together students from all 34 provinces of Indonesia to discuss critical issues such as education, the environment, and social development.
- Engaged in collaborative discussions with peers from diverse regions, fostering teamwork and cross-cultural understanding.
- Contributed ideas and insights on addressing key societal challenges, enhancing problem-solving and communication skills.

COURSES & CERTIFICATIONS

2024. Diploma in HTML5, CSS3, and JavaScript – *issued by Alison*

2024. UI/UX Design Full Intensive Bootcamp – *issued by Kelas.work*

2024. DIGITAL SKILLS: USER EXPERIENCE – *issued by Accenture x Futurelearn*

2024. Engineering Mechatronic Training Basic PLC and HMI Omron use Software CX-Programmer and CX-Designer – *issued by Dentech Corporation*

2023. Cybersecurity Training for MSMEs 1,2,3 – *issued by Mercy Corps x MicroMentor*

SKILLS

Technical Skills:

- **Programming & Scripting:** C#, C, Python, HTML, CSS, Bash, SQL
- **Data Analysis & Visualization:** Tableau, MATLAB, Google Collab
- **Database:** MySQL, phpMyAdmin
- **Design Tools:** Figma, Canva, Maze
- **Development Tools:** Git, Streamlit, Docker (basic), GitHub Actions (basic)
- **Productivity Tools:** Microsoft Office (Word, Excel, PowerPoint)

Soft Skills: Communication | Creativity | Analytical Thinking | Problem-Solving | Team Coordination | Time Management | Design Thinking | Learning Agility

Languages: Bahasa Indonesia (Native) | English (Intermediate)

PROJECTS

Distributed Work Guide Sheet (WGS) System

May – June 2025

PT Omron – R&D Intern Project

Deployed 14 device Raspberry Pi network for real-time work instructions on production lines

- Configured static IP, LAN, and MySQL client-server communication.
- Used bash scripting for automation and service setup.
- Enabled parallel data sync across multiple stations.

Inventory Management Web App

Mar – May 2025

PT Omron – R&D Intern Project

Built a web app to track stock movement and automate warehouse transactions using Streamlit and Python

- Integrated barcode, RFID, and ID card-based authentication.
- Added features include stock alerts, CSV export, and transaction history features.
- Deployed across two divisions to manage 1600+ items.

Freshly Dropped

Aug – Dec 2024

Kelas.work Final Project

Design an app that recommends recipes based on available ingredients and allows users to purchase missing items online for doorstep delivery

- Designed user personas, empathy maps, and user flows to address user needs effectively.
- Conducted usability testing with Maze to improve app performance and user experience.
- Created a user-friendly UI/UX prototype using Figma to simplify recipe discovery and ingredient ordering.

TikTok Song Data Analysis

Sept 2024

Machine Learning

Analyzed TikTok song data to uncover patterns in song popularity using machine learning techniques in Google Collab

- Cleaned and preprocessed datasets to ensure high-quality input for analysis.
- Extracted features like tempo, duration, and genre for classification and clustering models.
- Developed and implemented predictive models using Python and Scikit-learn.
- Visualized insights with Matplotlib and Seaborn for clear data interpretation.

BPJS Healthcare Service Utilization Analysis and Demand Prediction

Sept 2024

Machine Learning

Analyzed BPJS healthcare service data to enhance operational efficiency through predictive modeling and insights.

- Conducted Exploratory Data Analysis (EDA) to uncover patterns in service utilization and claim submissions.
- Developed classification models using RandomForestClassifier to predict service demands and patient diagnosis trends.
- Evaluated class imbalances and optimized the dataset to ensure model performance and fairness.