Jonathan Oktaviano Frizzy

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🔗 LinkedIn | ⚙ GitHub | 🌐 Portfolio | 📍 Surabaya, Indonesia

EDUCATION

Institut Teknologi Sepuluh Nopember   Surabaya, Indonesia
3nd Year in D4 Automation Electronic Engineering   *GPA: 3.55/4.00*
Jul 2022 – Present

EXPERIENCE

PLC and Supervisory Control System Laboratory ITS   Surabaya, Indonesia
Member   *Dec 2022 – Present, Full-time*
- Studying programmable logic control, Control System Engineering, Industrial Robot and automation hierarchy, with a focus on industrial automation development.
- Focusing in Machine Vision, Monitoring, Automation Electricity, and Project Based Learning by Industry Factory or ITS

Digital Talent Scholarship KOMINFO   Surabaya, Indonesia
Teaching Assistant   *Jan 2023 – Jun 2023, Part-time*
- Working on and evaluating the code submitted by participants Junior Website Developer.
- Compiling attendance data for each session.
- Conducting tests on each participant's Final Project, and then assigning assessment points to each feature of the projects submitted by the participants

PT. Pertamina Trans Kontinental   Cilacap, Indonesia
Electrical Engineer   *Jun 2023 – Dec 2023, Full-time*
- Designed and developed electrical systems ensuring seamless integration with onboard communication tools.
- Spearheaded the design of power management solutions, including battery and energy storage systems.
- Provided expertise in communication systems and electrical architectures for oil navigation vessels.

PT Innoveam   Surabaya, Indonesia
Electrical Engineer   *Jul 2024 – Aug 2024, Full-time*
- I work here as an electrical technician for target shooting robots at the Naval Military Academy shooting range. My responsibilities include creating electrical schematics, wiring, troubleshooting, and controlling each robot component using microcontrollers.

KKN Tematik Institut Teknologi Sepuluh Nopember   Surabaya–Sidoarjo, Indonesia
Leader   *Aug 2023 – Oct 2023, Part-time*
- Fully responsible as the project manager, overseeing the timeline, finances, and logistics in constructing the Smart Integrated Water Quality Monitoring System project.
- Creating a monitoring device website using PHP to store data from all sensors of the device, accessible from anywhere.
- Designing the installation scheme of electronic hardware components for the project, comprising sensing components, actuators, and radio transmitters.

Barunastra ITS   Surabaya, Indonesia
Electrical Designer   *Dec 2022 – Present, Full-time*
- Developing an emergency control breaker system to enhance safety and reliability.
- Managing the placement and safety protocols of all electrical components within the robot to ensure optimal performance and compliance with safety standards.
- Designing the installation scheme of electronic hardware components for the project, comprising sensing components, actuators, and radio transmitters.

Bioinformatics Study Club ITS   Surabaya, Indonesia
Vice Chairman   *June 2023 – Present, Part-time*
- As the Vice Chairman of the Bioinformatics Study Club, my responsibilities include Assisting the Chairman in overseeing club activities, ensuring smooth operation, and providing guidance to club members. Managing and coordinating research projects, workshops, and events to promote knowledge and skills in bioinformatics. Here is the instagram account.

Awards & Achievements

Autonomy Challenge at International Roboboat Competition: Secured 3rd place by integrating and coordinating all electronic components in 'Nala Proteus V.2,' including PCB, sensors, and actuators. Developed electrical and communication architecture, implemented with a success rate of 90 percent (Feb 2024)

Autonomy Challenge at International Roboboat Competition: 1st place, Working on and combining all electronic devices in "Nala Proteus" such as PCB and others.Designing electrical architecture and battery managament. (Mar 2023)

Autonomous Tourism Surface Vehicle Prototype Contest, (KKCTBN): Secured the 1st place by Took part in helping on developing electrical systems for Barunastra ITS' "Nala Athena" Autonomous Tourism Surface Vehicle Prototype Ship. (Oct 2023)

LKS Nasional Mobile Robotic: Secured the 3rd place by creating a robot utilizing a National Instruments controller, MyRIO, integrated with actuators such as servos and PG motors, and featuring a camera for barcode, color, and obstacle detection, serving as a hospital service robot (Oct 2022)

Projects

Smart Integrated Water Quality Monitoring System | *Article*

- This project was part of my Community Empowerment Program (KKN), with a focus on thematic environmental issues. The primary goal was to monitor the water quality of ponds by measuring key parameters such as temperature, pH, and oxygen levels. To facilitate the analysis and sharing of this data, I also developed a website to store and display all the collected information. This project aimed to provide valuable insights into the environmental health of local water bodies and support efforts in maintaining and improving water quality.

PT. Pertamina Trans Kontinental "Oil Navigating Ship" | *LinkedIn Experience*

- In this project, I assumed the dual role of an electrical and mechanical conceptor and consultant. My duties encompassed the design of electrical and communication diagrams for the ship, ensuring comprehensive and efficient systems integration. Additionally, I provided valuable recommendations for implementing ship maneuvers, contributing to the overall functionality and safety of the vessel. My multifaceted involvement underscores my expertise in both electrical and mechanical engineering disciplines, as well as my capacity to offer strategic insights across various aspects of maritime engineering projects.

Skills

Languages: C/C++, C#, Python, JavaScript, PHP, LabVIEW, MATLAB

Technologies: Flask, Streamlit, Node.js, React.js, Git, RabbitMQ, OpenCV, PyTorch, Mediapipe, TensorFlow, Arduino, ESP32, ESP8266, STM32, PLC Omron, PLC Mitsubishi, ROS2, KiCAD, Fusion360 CAD, Altium Designer

Methodologies: OOP, Functional Programming, Kinematics, PID, Neural Network, CNN

Certificates

Project Manager by Google   *Mar 2024*
Foundation Project Management *Certificate*.

Artificial Intelligence for Business by NASBA   *Mar 2024*
Introduction to Artificial Intelligence *Certificate*.

CS50's Introduction to Artificial Intelligence with Python   *Aug 2024*
Artificial Intelligence (AI) and Python (Programming Language) by Harvard University. *Certificate*.

Organizations

Barunastra ITS   *Dec 2022 – Present*
Expert Staff Electrical Division

Bioinformatics Study Club ITS   *May 2024 – Present*
Vice Chairman