Ichsan Pratama Adi

S.T., M.T.

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Summary

I am a graduate of a master's degree in Electronics Engineering at Institut Teknologi Sepuluh Nopember, Surabaya. I have some experience electronics manufacturing, programming, and robotics. I also have high experience in data processing and as a machine learning engineer. I am a confident person, willing to learn independently.

Education

Senior High School
July, 2009 - July, 2012

SMA Negeri 1 Klaten

on Science major

Bachelor of Electrical Engineering
September, 2012 - March, 2017

Institut Teknologi Sepuluh Nopember

Electrical engineering on Electronics major, with GPA 3.19.

Digital Talent Scholarship
September, 2018 - December, 2018

KOMINFO

Artificial Intelligence and Machine Learning training organized by KOMINFO, and got certificate as the Top 25 from 250 participant.

Master of Electrical Engineering
September, 2017 - September, 2019

Institut Teknologi Sepuluh Nopember

Majors in Electronics engineering, with GPA 3.84 (Cumlaude).

Skills

Data Collecting
Collecting, combining, and organizing data from various data source into one data lake

Data Analysis
Interpreting, processing, analyzing, and visualizing data using statistical technique.

Data Science
Extracting insights and knowledge from data through the application of mathematical, statistical, and computational techniques

Web Developer
Creating and managing a web dashboard with interactive time series sensor viewer

Electronic Circuit Manufacturing
Create and design an electronic device and PCB board from scratch

Robotics
Create robot hardware, software, motion planning, forward and backward kinematics.

Personal Projects

Realtime Server Dashboard Monitoring and Maintenance
February, 2022 - October, 2023

Full Stack Developer

Create a monitoring dashboard with analysis features, such as Equipment Analysis from historical sensor data, Application Reporting, Data Flow Monitoring, and sensor trending on an interactive dashboard. All of the codes are built with Python and HTML, and packed using Docker Container.

Industrial Optimization Dashboard Monitoring
December, 2022 - February, 2023

Full Stack Developer

Creating a dashboard to monitor the optimization process of a boiler. The dashboard are built using a combination of Python Flask, HTML, CSS, and JavaScript to build the web-based interface, and data is being loaded from a MySQL database to populate the dashboard in real-time.

The dashboard provides a centralized location to track and monitor key performance indicators related to the combustion process, such as excess oxygen levels, fuel and air management, steam pressure and temperature, and water treatment. The goal of this dashboard is to provide easy-to-use, real-time visibility into the performance of the boiler and to support ongoing optimization efforts.

Obstacle Mapping System with Stereo Camera as a Navigation Tool for Blind
August, 2018 - August, 2019

Master Thesis

A stereo camera based assistive-system that can detect objects and or obstacles around the blind people. The objects detected then inform to the user via sound to guide them avoid the obstacles.

Working Experience

Electrician
Jan 2024 - Now

PT Sandvik

- Perform regular maintenance and troubleshooting of mobile equipment for underground mining operations.
- Conduct inspections and repairs to ensure equipment reliability and minimize downtime.

Data Scientist & Backend Developer
2019 - Jan 2024

PT. Sarana Maju Lestari

- Played a key role in the digitalization projects of PJB's Power Plant, named SOKET, as a Data Scientist and Backend Developer, responsible for preprocessing raw data, including data filtering based on statistical analysis.
- Developed a Reliability Module based on LSTM and Autoencoder, enabling accurate prediction of future events and effective anomaly detection.
- Maintained and optimized the Boiler Auto Tuning (BAT) model, specializing in Combustion Optimization process, utilizing Machine Learning techniques to enhance the efficiency of the combustion process in Power Plants.
- Implemented real-time monitoring and maintenance applications for the Combustion Process, ensuring optimal performance and minimizing downtime.
- Dockerized the project's API and deployed it on a CentOS server, ensuring scalability and ease of deployment.
- Maintained clear and concise documentation of all processes and methodologies, facilitating seamless knowledge transfer and collaboration among team members.
- Collaborated with cross-functional teams to ensure the successful implementation and integration of the digitalization projects.

Languages

Communication

- Indonesia (main)
- English

Programming

- Python
- SQL
- HTML
- JS
- Matlab
- C++

Core Competencies

- Advanced in Python programming
- Interact python with hardware, databases, web application, and machine learning end-to-end application
- Time series data and image processing
- Experienced in Machine Learning (classification, regression, clustering)
- Experienced with Linux Environment (especially GCP) and doing variative works in it
- Able to work synchronized with others via git repository and cloud server.

- Electronics basic
- Create and read electronic schematic
- Able to debug and test embedded system
- Using oscilloscope
- Experienced in C++ for MCU
- Know about intelligent electronics like PID, Fuzzy, Genetic algorithm.
- Familiar with power plants process.
- Robotics and Automation

- Regularly updated skills and knowledge in the field of Data Science and Backend Development, staying abreast of the latest technologies and best practices.

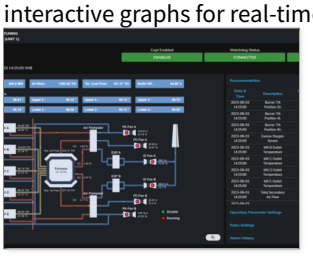
System Programmer
August, 2019 - October, 2019

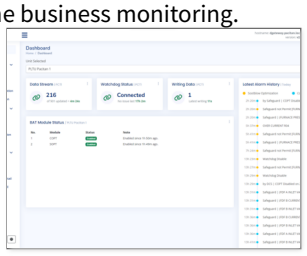
CV. Ilham Jaya Production

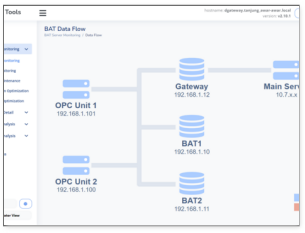
Organizing people to work with their job well in Barrier Gate installation. And also creating automatic program with Raspberry Pi for reading QR code, capture truck picture with local network CCTV, accessing databases online, and controlling Barrier Gate to open and close as the truck in and out.

Portfolio

Analytics Dashboard - Informative and visually appealing data analytics view with interactive graphs for real-time business monitoring.


Combustion Dashboard


Monitoring Dashboard



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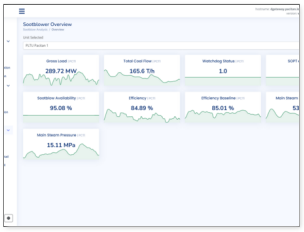
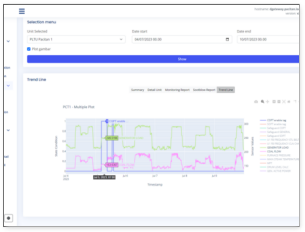

Live Sensor Viewer


Historical Data Trends


Historical Analytics