AMALDI TRI SEPTYANTO

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SUMMARY

An electrical engineering graduate with a passion for cutting-edge technology, particularly in the fields of IoT (Internet of Things) and robotics. His academic journey led him to attain a Bachelor's degree in Electrical Engineering from Institut Teknologi Bandung, where he honed his skills and knowledge in electrical systems and engineering principles. With over four years of hands-on experience, he has specialized in the development of firmware for embedded systems. Tyan is eager to take on new challenges, collaborate on exciting projects, and continue pushing the boundaries of what is possible in these dynamic fields.

EXPERIENCE

PT. ARIA AGRI INDONESIA – Jakarta, Indonesia
Firmware Engineer   *Mar 2022 – Sep 2023*

- Designed and created firmware for a device called Worker Tracker for data acquisition of field worker footprint so the data can be transmitted by file transfer protocol communication to a single board computer before transmitting the data to the cloud
- Designed and created firmware for a device called Turbo Spreader for the application of fertilizer spreader to calculate how much fertilizer is on the field for each coordinate, and served the data to a data platform application, so this device can help monitor fertilizer use day by day
- Maintained the firmware to implement clean code so that it is well-documented and organized
- Reported work and progress by doing daily standups before work and sprint review at the end of the week

PT. Movus Technologies Indonesia – Bandung, Indonesia
Firmware Engineer Intern   *Aug 2021 – Oct 2021*

- Increasing performance by created and refactored 60% of subfeatures for hardware to help the purpose of the application to track the activity of the user who buys a car through movus
- Found and debugged the 30% bugs that occur when making the firmware itself
- Reporting progress making firmware related in weekly scrum every day on daily scrum meetings

PT. IROSTech Solusi Inteligen – Bandung, Indonesia
Engineer Intern   *May 2019 – Aug 2019*

- Created a prototype to develop IoT (Internet of Things) technologies for household purposes using ESP32 as a microcontroller to control sensor and actuator
- Created a simple dashboard apps with a web-based as interface for users to control sensor and actuator through microcontroller up to 80% of finished

PROJECTS

Institut Teknologi Bandung – Bandung, Indonesia
Part-Time Research Assistant on Autonomous Tram Project   *Oct 2021 – Apr 2022*

- This project is a collaboration between ITB (*Institut Teknologi Bandung*), INKA (*Industri Kereta Api*), riset.ai, and LPDP (*Lembaga Pengelola Dana Pendidikan*) which aims to create a tram that can run autonomously
- Created a program to logging environment data such as tram waypoint coordinate from GNSS (*Global Navigation Satellite System*), pointcloud data from LIDAR (*Light Detection and Ranging*)
- Designed a first prototype of power system for powering all sensor and the computer for logical calculation which will be used in the Autonomous Tram
- Reporting the progress twice a week related scrum assignment last week before

Part-Time Research Assistant on Autonomous Forklift Project   *Oct 2021 – Mar 2022*

- This project is a collaboration between ITB (*Institut Teknologi Bandung*), and CPIN (*Charoen Pokphand Indonesia Tbk*) which aims to create a forklift that can run autonomously, and locating itself in indoor facility
- Conducted research about mobile robot localization using Adaptive Monte Carlo Localization for Prototype of Autonomous Forklift using ROS (Robot Operating System) as framework and Gazebo as simulator

Research Assistant on Laboratory of Advance Robotic ITB   *Sep 2020 – Aug 2021*

- Created a platform for developing an autonomous drone that can autonomously inspect the damage, such as crack, moss, lumpy surface, on the bridge structures

- Reporting the research on thesis "Visual Investigation of Bridge Damage Using Autonomous Drone" from proposal until testing phase every month

Prototype Project: API Documentation
- This project is for the final assessment of the bootcamp held by Sanbercode by creating API documentation using the Golang programming language and Swagger as a tool to help create the API documentation.
- The project itself is API documentation for an application that can provide information about what tourist attractions can be visited in a particular city.
- Project link: https://fp-city-50-amaldi-production.up.railway.app/swagger/index.html .

ORGANIZATIONAL EXPERIENCE

EMBARGO 2018 - Bandung, Indonesia
Leader   *Aug 2017 – April 2018*
- EMBARGO stands for *Empati Berbagi Bersama Allegro*. Its a social activites carried out by electrical engineering students during their second year
- Made 20 teaching tools to help elementary school students study and enthusiasticly about understanding the lessons taught by their teachers
- Manage 100 less electrical engineering students to complete this event in 6 months of preparation
- Report all matters from proposal until the event itself in accountablity trial at the electrical student association

KRSBI-H ITB Team – Bandung, Indonesia
Head of Electrical Division   *Jul 2019 – Oct 2020*
Staff of Electrical Division   *Aug 2018 – Jul 2019*
- Managed 5 people of Electrical Division to complete the electrical related task to build 3 robust humanoid robots that can play well and win at KRI (Kontes Robot Indonesia) in one year less
- Coordinated with Mechanical and Programming Division about tasks that needs to be done in period of time for better robot performance
- Found and debugged the 75% of electrical problems that occur on making humanoid robots
- Developed an interface button design from hardware design until behavior logic for state control of robots

EDUCATION

SMA NEGERI 5 SURABAYA   *May 2016*
Natural Science

INSTITUT TEKNOLOGI BANDUNG – BANDUNG, INDONESIA   *Oct 2021*
Bachelor of Engineering, Electrical Engineering

ADDITIONAL

Technical:
   Robotic Development: MATLAB, Python, C++, ROS, Autodesk Inventor, Altium, Linux
   Drone Development: Pixhawk, ArduPilot, PX4
   Backend Development: Golang
   Internet of Things: Arduino, MQTT, ESP32
   Others: Microsoft Excel, Git
Languages: Indonesia, English