

Dionesusius Agung

ROBOTICS SOFTWARE ENGINEER

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Summary

A computer science graduate from Institut Teknologi Bandung with a year of professional experience in robotics and deep tech industry, focusing on mobile robot development and software engineering. Has more than 2 years of research and hands-on experience in developing mobile robots. Familiar with popular robotics development tools such as Robot Operating System and Gazebo simulator.

Education

Institut Teknologi Bandung

Bandung, Indonesia

BACHELOR OF SCIENCE, INFORMATICS/COMPUTER SCIENCE

Aug 2016 - Oct 2020

- Thesis: "Autonomous Exploration and Active Mapping with Mobile Robots".
- Was an active member of a robotics developer team which resides in the Autonomous Vehicle Research Group Lab.
- Had organizational experience in the Computer Science Student Union, once served as the Council Secretary and then as the head of a committee in the Council of Supervisory and Representatives.

Skills

Programming Python, C++, Golang, Javascript

Tools and Technologies Robot Operating System (ROS), Linux Operating Systems, OpenCV Library, Gazebo Simulator

Languages Indonesian (native), English (B2/C1)

Professional Experience

Movel AI

Singapore, Singapore

ROBOTICS SOFTWARE ENGINEER

Sept 2020 - Present

- Works closely with product manager and other engineers in the design and development of the flagship robotics software product
- Initiated, developed, and maintained a robotics simulation system for a Fleet Management System product with a web engineer
- Designed and implemented a novel camera-based mapping system in collaboration with a senior robotics engineer

Shopee International Indonesia

Jakarta, Indonesia

SOFTWARE ENGINEER INTERN

May 2019 - Aug 2019

- Implemented back end handler component that deals with a high number of requests per second in Golang.
- Created "Feature Release Manager" application which allows independent and individual releases of features for different countries in Golang.
- Wrote software documentation of "Feature Release Manager" application and other software components that I implemented.

Organizational Experience

Dagozilla Robotics (Autonomous Vehicle Research Group Lab, ITB)

Bandung, Indonesia

SENIOR TECHNICAL ADVISOR

Sept 2019 - Sept 2020

- Gave technical advises and feedback to the software/programming team.
- Did more advanced research in state estimation and implementations of Bayesian filters.

LEAD SOFTWARE ENGINEER

Sept 2018 - Sept 2019

- Led the design and development process of the software system for a telepresence robot as well as the documentation of the system.
- Directed the research and development on computer vision, robotic control systems, robot AI, and software UI/UX for MSL-class robots.
- Initiated better engineering and software documentation practices that enable the sharing of knowledge between divisions.

SOFTWARE ENGINEER

Sept 2017 - Sept 2018

- Designed and built the computer vision software component for MSL-class competition robots using OpenCV with ROS in C++.
- Created software documentation of the vision system that I built as well as other legacy codes that were going to be migrated.
- Initiated the research on a pose estimation method by combining odometry and IMU sensor data using Extended Kalman Filter.

Computer Science Student Union, ITB

Bandung, Indonesia

HEAD OF ASPIRATION COMMITTEE, COUNCIL OF SUPERVISORY AND REPRESENTATIVES

March 2019 - March 2020

- Managed to increase the presence of the committee within the students' community.
- Increased the number of inputs and feedback gathered by up to 500% by actively taking feedback from students.
- Gathered suggestions and feedback from the students regarding a possible amendment to the Charter of the Union.
- Organized an extraordinary council session addressing the amendment to the Charter.

COUNCIL SECRETARY, COUNCIL OF SUPERVISORY AND REPRESENTATIVES

March 2018 - March 2019

- Archived incoming letters and notices addressed to the council and wrote responses if necessary.
- Wrote and archived decision letters, documents, and notices of the council.
- Wrote and authorized the council's minutes of meetings.

MEMBER OF REPRESENTATIVES, COUNCIL OF SUPERVISORY AND REPRESENTATIVES

Sept 2017 - March 2018

- Approached fellow union members to ask for feedback and suggestions for the union.
- Proposed policies and solutions to the council and the executive body of the union based on suggestions and feedback from peers.