

Muhamad Andung Muntaha

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Jakarta, Indonesia
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A T-shaped software engineer who loves working with low-level stuff up to building distributed systems. I am now deepening my speciality in the area of embedded linux and realtime systems development. With a *can do* attitude, I always accept new challenge, adapt quickly, and strive to give real impact to the organization.

Work Experience

- **SoleMetrix** Research Link, Singapore
Embedded Software Engineer June 2020 - present
 - Designing and implementing Zephyr RTOS-based embedded software for a wearable device.
 - Implementing accurate ranging protocol using ultra-wideband.
 - Implementing compression algorithm to package sensor data to be transferred efficiently to the host computer.
- **Nodeflux** Jakarta, Indonesia
Lead Embedded Software Engineer August 2019 - May 2020
 - Designed and implemented embedded linux architecture, OTA software update strategy, and remote shell mechanism for an edge computing platform.
 - Built a custom embedded linux operating system using Yocto.
 - Developed machine learning application using CPU only and GPU accelerator.
 - Leading a team of three software engineers.
- **Scania Sverige** Stockholm, Sweden
Thesis Worker in Real-Time Systems January 2019 - June 2019
 - Reduced HIL real-time simulator troubleshooting time by developing logging & monitoring system.
 - Improved the system development process by introducing a formal schedulability analysis method based on the time demand analysis to validate the system's timing requirement.
- **Freelance** Stockholm, Sweden
Embedded Linux Developer August 2018 - December 2018
 - Delivered 2 cellular network automatic testing devices, developed using Qt on embedded linux.
- **Ontel AB** Stockholm, Sweden
Embedded Software Developer March 2018 - December 2018
 - Delivered 2 types of bike sharing IoT hardware prototypes by designing and implementing the software in Arm MbedOS while maintaining the system's low-power requirement and addressing an unreliable network constraint.
- **KTH MIST Student Satellite Project** Stockholm, Sweden
Embedded Software Developer March 2018 - December 2018
 - Achieved a significant milestone in the end-to-end satellite communication by implementing a MISRA-C compliance radio communication API.
 - Minimized the functional testing time by introducing a radio link communication simulator.
 - Introduced a proof-of-concept in processing experiment data by extending the ground station software.
- **Schlumberger** Jakarta, Indonesia
IT Engineer & Application Developer November 2013 - June 2017
 - Booked \$5.5M soft cost savings by introducing 15 Sharepoint applications, 2 web applications, and 2 mobile applications which transformed internal business processes to reduce non-productive time, prevent risks, and increase revenue.
 - Nominated as the winner of the transformation award by developing a web and mobile application to increase Account Receivable turnover ratio.
 - Awarded as the best IT engineer based on user satisfaction feedbacks as well as excellent performance in maintaining IT services availability.

Education

- **KTH Royal Institute of Technology** Stockholm, Sweden
M.Sc. Embedded Systems, minor in Embedded Software August 2017 - June 2019
 - Related courses: Embedded Systems, Embedded Software, Software Reliability, Compiler and Execution Environment, Networked Systems Security, and Modern Method in Software Engineering.
 - Thesis: Non-intrusive Logging and Monitoring System of A Parameterized Hardware-in-the-loop Real-Time Simulator.

- **10 Nopember Institute of Technology**

Surabaya, Indonesia

- *B.Eng. Electrical Engineering, minor in Computer Engineering*

August 2009 - July 2013

- Related courses: Embedded Systems, Computer Architecture, Data Communication, Computer Networks, Computer Vision, Algorithm & Data Structure, and Artificial Intelligence.
- Thesis: Self-localization of Humanoid Robot Inside Soccer Field Using Triangulation and Particle Filter Methods.

Skills

- **Programming Language:** C, C++, C#, Go, Python, JavaScript, Shell Script
- **Real-Time OS:** Zephyr, ARM MbedOS, MicroC/OS-II, FreeRTOS, RT-Linux
- **Web Technology:** VueJs, .Net Core, ELK Stack, Socket.IO
- **Cross Platform:** Qt, Xamarin
- **Others:** Backend and network programming, Embedded Linux, Cloud Technology, Docker, Yocto, SQL

Industry Certifications

- Cisco Certified Network Associate Routing and Switching (CCNA) - 2016
- ITIL Foundation - IT Service Management - 2015
- Microsoft Certified IT Professional - 2015
- ISC2 System Security Certified Practitioner (SSCP) - 2014

Courses

- Beginning Test Driven Development in C++ - Udemy, 2018
- C++ for Programmers - Udacity, 2018
- ITIL Foundation in IT Service Management - Jakarta, 2016
- Schlumberger Route 45 Leading Change Agent Training - Jakarta, 2016
- Cross Platform Mobile Application Development Using Xamarin - Jakarta, 2015
- Configuring Cisco Switch and Router - Jakarta, 2014
- Value Creation for the Business through IT Enablement - Paris, 2014

Honors & Awards

- Awardee of LPDP Scholarship PK87 2017
- Jakarta Fishackathon Winner 2017
- Schlumberger Indonesia Best IT Engineer 2016
- Runner up Indonesian Intelligence Robot Contest 2012