Muhammad Fadhil Ginting *Last Updated on : 15th October, 2019*

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Education

2018-Now **Master of Science in Robotics, System, and Control** - ETH Zürich
Gpa: 5.65/6.00 | Tutor: Prof. Margarita Chli

2013-2017 **Bachelor of Science in Electrical Engineering** - Institut Teknologi Bandung
Gpa: 3.94/4.00 | Advisor: Prof. Bambang Riyanto Trilaksono

Experience

Sep 2019 - Now — NASA Jet Propulsion Laboratory(JPL), Pasadena, CA, USA
Visiting Robotics Researcher
Developing innovative multi-robot system for underground operation participating in DARPA Subterranean Challenge.
Highlights: *Mixed Reality, Face Recognition, Design Thinking, Magic Leap One, Unity, C++.*

Mar 2019 - Sep — ETH Juniors, Zürich, Switzerland
Magic Leap Mixed Reality Developer
Developing mixed reality application using face recognition and virtual interaction for healthcare industry.
Highlights: *Mixed Reality, Face Recognition, Design Thinking, Magic Leap One, Unity, C++.*

Feb 2019 - Aug — ETH Zürich, Zürich, Switzerland
Graduate Research Student, *Autonomous System Laboratory(ASL)*
Designing learning based method to perform visual localization and mapping using text based landmark, and leveraging text descriptor with existing localization method in place recognition task.
Supervisor: Dr. Cesar Dario Cadena

Research Student, *Vision for Robotics Lab(V4RL)*
Designing swarm drones formation estimation using relative distance between agents in distributed system.
Supervisor: Prof. Margarita Chli
Highlights: *Deep Learning, SLAM, Tracking, Mapping, Computer Vision, Sensor Fusion, EKF, CUDA, TensorFlow, Python, C++, ROS.*

May 2017 - Aug 2018 — Bandung Institute of Technology, Bandung, Indonesia
Robotics Engineer, *Advanced Robotics Research Laboratory*
Developed navigation and guidance system for Autonomous Underwater Glider, and conducted sea testing.
Supervisor: Prof. Dr. Ir. Bambang Riyanto Trilaksono
Highlights: *Autonomous Underwater Vehicle(AUV), Sonar, IMU, Altimeter, Sensor Fusion, Path Planning, Hardware-in-the-loop (HIL) simulation, C++, ROS.*

Jun 2016 -Aug 2016 — CERN, Geneva , Switzerland
Summer Intern, *CERN Summer Student Programme 2016*
Devised a controlled high voltage module for Micro Pattern Gas Detectors(MPGD), wrote the report and presented the result to MPGD Collaboration.
Supervisor: Dr. Leszek Ropelewski
Highlights: *GEMs Detector, PCB Design, LabVIEW, HV Power Supply, Microcontroller, C++.*

Publications

1. **Ginting, M. F.**, et al."Hardware In the Loop Simulation Development of Guidance System for Autonomous Underwater Glider."*International Conference on Electrical Engineering and Informatics*, 2017.

Skills

Language	English(Proficient C1, IELTS 7.5/9.0) , German(Independent B1), Indonesian(Native)
Programming	C/C++, Python, MATLAB, Bash(●●●●●), Java, VHDL(●●●●○),C#,MySQL(●●●○○)
Software	Systems(Linux, Windows, ROS, Virtual Box), Tensorflow, Pytorch, CUDA, OpenCV, PCL, Eigen, LabVIEW, MPI, Eagle, Altium Designer, IDEs(Visual Studio, Unity, Android Studio)
Hardware	NVIDIA Jetson, FPGA, Beaglebone, Raspberry-Pi, TS-7250 SBC, ARM STM32

Awards and Achievement

Present — Ministry of Finance of Indonesia - Awardee of LPDP Education Scholarship(CHF 59,000)
2017 — McKinsey Young Leader for Indonesia 2016 - Top 10 graduates(USD 1,000)
2016 — Institut Teknologi Bandung - Outstanding Student Award
2015 — ABU Robocon(Asia Pacific Broadcasting Union Robot Contest) - 2nd Runner Up

Social Activities

2017 *Project Lead*, Assesment Center Project - McKinsey Young Leader for Indonesia
2016 *Chairman*, University Student Robotics Team
2015 *Senior Staff of Character Development Division*, Electrical Engineering Student Association
Hobbies : Tennis, Travelling, Photography, Reading

Master of Science in Robotics, System and Control

Grades

Exam	**Grade**	**Credit Hrs**
System Identification	6/6	4
Robot Dynamics	5.75/6	4
Probabilistic Artificial Intelligence	5.75/6	4
Programming for Robotics	6/6	1
Computer Vision	5.25/6	6
Self-Organizing Multi-Agent Systems	5.75/6	3