

# Fadillah Adamsyah Ma'ani

Email: fadillahadam11@gmail.com  
LinkedIn: linkedin.com/in/fadamsyah  
GitHub: github.com/fadamsyah  
Phone: +62 8956 0141 2766

## EDUCATION

---

### Institut Teknologi Bandung (ITB)

Bandung, Indonesia

B.S. in Engineering Physics, GPA: 3.96/4.00 (*Cum Laude*)

2016–2020

- **Thesis:** “Implementation of Longitudinal and Lateral Control on Autonomous Vehicle”
- **Thesis Advisor:** Prof. Dr-Ing. Yul Yunazwin Nazaruddin & Augie Widyotriatmo, Ph.D.
- **Academic Advisor:** Wisnu Hendradjit, M.Sc.E. & Dr. Eko Mursito Budi

## EXPERIENCE

---

### Neurabot (Neura Integrasi Solusi)

Remote, Indonesia

AI Engineer Internship

Feb’21 - Now

- Fasciola eggs detection
  - \* Train a deep learning model detecting Fasciola eggs in images using transfer learning

### Institut Teknologi Bandung

Bandung, Indonesia

Research Student at Instrumentation, Control and Decision System Laboratory

Aug’19-Sep’20

- Autonomous control for an autonomous golf cart ([video](#))
  - \* Designed a drive-by-wire system on the golf cart
  - \* Created a control system consisting of path following and speed controller for the autonomous golf cart
  - \* Created a 2D state estimation module incorporating accelerometer, gyroscope, GNSS, and vehicle nonholonomic constraint using the Extended Kalman Filter algorithm
- Introduction to nature-inspired optimization algorithms
  - \* Provided tutorials about basic optimization and nature-inspired optimization algorithm
  - \* Delivered hands-on work using Python and CARLA Simulator
- Application of neural networks to vehicle state estimation problem
  - \* Conducted research on using diagonal recurrent neural networks to improve the vehicle state estimation
  - \* Designed sensor fusion module incorporating accelerometer, gyroscope, and GNSS data using the Error-State Kalman Filter algorithm

### Toyota Motor Manufacturing Indonesia

Jakarta, Indonesia

Internship at Press & Welding Production Department

Jun-Aug’19

- Development of low-cost internet-based automation system
  - \* Created an Arduino module enabling the user to control bulbs from the internet
  - \* Delivered hands-on tutorials on using Arduino

## PUBLICATIONS

---

- [1] **F. A. Ma'ani** and Y. Y. Nazaruddin, “[Optimization of Longitudinal Control of an Autonomous Vehicle using Flower Pollination Algorithm based on Data-driven Approach](#)”, in *International Journal of Sustainable Transportation Technology*, vol. 3, Oct. 2020, pp. 58–65.
- [2] Y. Y. Nazaruddin, **F. A. Ma'ani**, P. W. L. Sanjaya, E. R. Muten, G. Tjahjono, and J. A. Oktavianus, “[Localization Method for Autonomous Car Using Virtual Sensing System](#)”, in *2019 6th International Conference on Electric Vehicular Technology (ICEVT)*, 2019, pp. 202–207.

## SKILLS

---

- **Programming:** Python, MATLAB, C++, SQL
- **Deep Learning:** PyTorch, Keras, Tensorflow
- **Machine Learning:** Scikit-learn, XGBoost
- **Software:** Pillow, ROS, OpenCV, Solidworks
- **Microcontroller:** Arduino, ESP32
- **Tools:** Git, LaTeX, Ubuntu, MS Office
- **Languages:** Indonesian, English
- **iBT:** 98/120, R: 28 L: 27: S: 20 W: 23

## SCHOLARSHIPS AND AWARDS

---

- **Certified SOLIDWORKS Associate** 2018  
*A certification of basic mechanical design skills using Solidworks held by Dassault Systèmes.*
- **3rd Place - Calculus Cup 2018** 2018  
*A competition of calculus quizzes held by Universitas Negeri Jakarta.*
- **Finalist - IoT Competition** 2018  
*A competition of innovative technologies using IoT concepts held by Telkom University.*
- **Awardee - “Beasiswa Unggulan” Scholarship** 2017  
*A merit-based full scholarship held by The Indonesian Ministry of Education and Culture.*
- **Semi-finalist - Calculus Cup 2017** 2017  
*A competition of calculus quizzes held by Universitas Negeri Jakarta.*

## SELECTED COURSES

---

- **Deep Learning Specialization**, deeplearning.ai, Coursera
- **Mathematics for Machine Learning Specialization**, Imperial College London, Coursera
- **AI for Medical Diagnosis** Course, deeplearning.ai, Coursera
- **AI for Medical Prognosis** Course, deeplearning.ai, Coursera
- **Machine Learning** Course, Stanford Online, Coursera
- **Machine Learning Fundamentals with Python Track**, DataCamp
- **Advanced Computer Vision with TensorFlow** Course, deeplearning.ai, Coursera
- **Custom Models, Layers, and Loss Functions with TensorFlow** Course, deeplearning.ai, Coursera
- **Getting started with TensorFlow 2** Course, Imperial College London, Coursera
- **Self-Driving Cars Specialization**, University of Toronto, Coursera
- **Robotics: Aerial Robotics** Course, University of Pennsylvania, Coursera

## EXTRACURRICULAR ACTIVITIES

---

- **Engineering Drawing** Practicum Assistant at Akademi Metrologi dan Instrumentasi Nov’20 –Jan’21  
*Evaluated practicum assignments, delivered hands-on tutorials, and became one of the final-project coordinators.*
- **Engineering Mathematics II** Teaching Assistant at ITB Jan’–May’19  
*Evaluated quizzes and assignments. Delivered pre-exam tutorials.*
- **Electric Circuits & Electronics** Teaching Assistant at ITB Aug’–Dec’18  
*Evaluated quizzes and assignments. Delivered pre-exam tutorials.*
- **Engineering Drawing** Practicum Assistant at ITB Aug’–Dec’17  
*Evaluated practicum assignments, delivered hands-on tutorials, and became one of the final-project coordinators.*
- **Young Member** at ITB Engineering Physics Student Association Aug’17–Sep’20  
*Delivered course tutorials for exam & homework problems.*