

AJI SETYOKO

MASTER DEGREE CANDIDATE AT NATIONAL TAIWAN UNIVERSITY OF SCIENCE AND TECHNOLOGY



CAREER OBJECTIVE

Seeking challenging works with a progressive organization that provides an opportunity to capitalize on my technical skills & abilities in the field of Deep Learning on Computer Vision, Data Engineering, and Cloud Computing.



CONTACT & ADDRESS

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PROJECT AND ACHIEVEMENTS

PROFESSIONAL CERTIFICATION



TensorFlow Developer Certificate

May 6, 2020 - May 6, 2023 | ID 17749187 | TensorFlow | Google Developer Certification

PRE-PROFESSIONAL EXPERIENCE

- **GRADUATE RESEARCHER** | Big Data Laboratory | Fall 2018 - Present
 - As a programmer on deep learning and machine learning.
 - Developing a new algorithm in the computer vision area.
 - Employs an existing state of the art of computer vision algorithm in real-world problems (related to industrial problems which comes from Taiwanese company).
 - Example project: safety systems and recommendation systems on labor workers based on computer vision.
 - **Employer** : Departments of Computer Science and Information Engineering, National Taiwan University of Science and Technology.
- **DEVELOPER TEAM** | Android Internship | Summer 2017
 - As a full-stack developer to build an Android application for students course system and security features.
 - The roles are a back-end programmer, a front-end programmer, and a UI/UX designer.
 - This is a team project in which everyone was rolling to another position randomly every feature requests.
 - **Employer** : Center of Computer Science Universitas Indonesia (PUSILKOM UI).
- **RESEARCHER INTERN** | Control Department on Rocket Technology Center Indonesia | Winter 2016
 - As a control systems designer by simulation.
 - Make a rocket control systems and a rocket mathematic models based on simulation.
 - **Employer** : National Institute of Aeronautics and Space (LAPAN) Indonesia.
- **LABORATORIUM ASSISTANT** | Lecturer Team Research | Summer 2015
 - Electric inverter research team under Professor supervision.
 - Research to build an effective Inverter, focus as an electrical schematic engineer.
 - **Employer** : Motor Control Laboratory in Department of Electrical Engineering Universitas Indonesia.

PUBLICATION

- **Development of a Backpropagation Based Neural Network Control System for Following Rocket Trajectory in a Hovering Manuever** | 2018
 - Undergraduate Thesis - Universitas Indonesia Library.

ACHIEVEMENT

- **INDONESIA NATIONAL LINE FOLLOWER ROBOTIC COMPETITION** | 2012
 - First Winner, Universitas Indonesia.

COURSE CERTIFICATION



TensorFlow in Practice Specialization

May 5, 2020 - No Exp. | ID SDAJP36MUDL4 | [deeplearning.ai](https://www.coursera.org/learn/tensorflow-in-practice) | Coursera



Advanced Machine Learning with TensorFlow on Google Cloud Platform Specialization

May 9, 2020 - No Exp. | ID 4YFNQE74C6Q | [Google Cloud](https://www.coursera.org/learn/advanced-machine-learning-with-tensorflow-on-google-cloud) | Coursera

EDUCATION

• MASTER OF SCIENCE ON COMPUTER SCIENCE AND INFORMATION ENGINEERING | 2018 - Present

- *Research area : Computer Vision and Big Data , GPA : 4.2/4.3*
- National Taiwan University of Science and Technology, Taipei, Taiwan.

• BACHELOR OF ENGINEERING IN ELECTRICAL ENGINEERING | 2014 - 2018

- *Major on Control Systems and Minor on Telecommunications, GPA : 3.5/4.0*
- Universitas Indonesia, Depok, Indonesia.

EXPERIENCE

PORTOFOLIO

• TWO PERSON INTERACTION RECOGNITION and CGU_PROJECT [Thesis and Laboratory Project] - Present

- *Building a novel algorithm to detect a two-person interaction (action) from a video (real-time or file-based).*
- *As a lead and a main programmer to industrialize existing methods on action recognition models.*
- *In terms of laboratory projects, the works are building recommendation systems and safety systems for labor workers.*
- **Keywords :** Action Recognition, Graph Convolutional Network, Skeleton Detection, Docker, AWS Cloud Computing

• HIGHWAY CAR COUNTER VIDEO BASED [Course Project] - 2019

- *Built a new algorithm by combining object detection and object tracker as an object counter.*
- *Apply the model to real-time video or file based video as an occurrence counter (human counter, animal counter, and or others detection).*
- **Keywords :** Object Detection, Object Tracking, YOLO, Neural Network, Real-time Object Detection

• SUPER RESOLUTION ON ANDROID PHONE [Advanced Course Project] - 2019

- *Deployed a super-resolution algorithm on a Qualcomm chipset based android smartphone.*
- *Re-code and re-train an existing code to be able to run by the supported libraries.*
- *Use a SNPE library to fully maximize the GPU support unit on a smartphone.*
- **Keywords :** Android Smartphone, Qualcomm Chipset, SNPE Library, Generative Adversial Network

• CUTTING AND PRINTING OPTIMIZATION [Course Project] - 2019

- *Built a model to find the most effective way to do cutting and printing problems such as fabric cutting solutions.*
- *Used Genetic Algorithm and Particle Swarm as base models.*
- *The example result is maximizing the cut result of a fabric cutting layer by minimizing the wasted part on the fabric layer.*
- **Keywords :** Metaheuristic, Optimization, Genetic Algorithm, Particle Swarm

• LEARNING ENGLISH WITH CHATBOT [Self-Learning] - 2018

- *Built a Natural Language Processing (NLP) system to generate English language problems and the probability answers automatically.*
- *Employed an NLTK library in Python and deployed as a chatbot by using a common chatting application, LINE.*
- **Keywords :** Line Chatbot, Heroku, NLP, NLTK, Python Flask

• MyUI ANDROID APPLICATION [Internship Project] - 2017

- *Built an android application to assist students in homework and task.*
- *The main rule was becoming a JAVA programmer.*
- *The job desks are covering from back-end programming, front-end programming, and UI/UX designing.*
- **Keywords :** Android Studio, JAVA, AGILE Software Developments, Google Firebase

ORGANIZATION & MEMBERSHIP

• ADMINISTRATOR OF PURWOREJO'S COLLEGE STUDENT COMMUNITY OF UNIVERSITAS INDONESIA | 2016 - 2017

• PROJECT OFFICER OF WELCOMING NEW COLLEGE STUDENT OF UNIVERSITAS INDONESIA | 2015

• MEMBER OF NATURE COMMUNITY "KAMUKA PARWATA" FACULTY OF ENGINEERING UNIVERSITAS INDONESIA | 2014 - Present

TECHNICAL SKILLS

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|-----------------------|--|---|
| • Python | • TensorFlow, PyTorch, and Caffe2 | • Cloud Computing : AWS EC2 and Machine Learning on Google Cloud Platform |
| • C/C++ | • Sckit-learn and Pandas | • Web Developments : HTML and CSS |
| • Matlab and Simulink | • Hadoop, Spark, and ApacheBeam | • Agile and DevOps : AGILE Certificate |
| • JAVA and Kotlin | • IOT Developments : Arduino, Raspberry, and NVIDIA Jetson | • CST Studio, Proteus Studio, and PSIM |
| • Bash Scripting | | |

ADDITIONAL INFORMATIONS

Languages :

- English,
- Bahasa (Indonesian),
- Mandarin,
- Javanese.

References :

- **Master Advisor : Kai-Lung Hua**, Vice Dean in College Electrical Engineering & Computer Science at National Taiwan University of Science and Technology. **Email:** hua@mail.ntust.edu.tw
- **Master Co-Advisor : Chao-Lung Yang**, Associate Professor, Vice Director of Industry 4.0 Center National Taiwan University of Science and Technology. **Email:** clyang@mail.ntust.edu.tw