

Pray Somaldo

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EDUCATION

Universitas Indonesia

Master of Computer Science

Depok, Indonesia

Feb. 2019 – Jan 2021

Universitas Indonesia

Bachelor of Science in Mathematics

Depok, Indonesia

Sept. 2013 – May 2017

EXPERIENCE

AI Engineer

GDP Labs

June 2021 – Present

South Jakarta, Jakarta

- Build data pipeline for client with AWS S3, Glue, Lambda and Athena also visualize it with Quicksight
 - Build visualization dashboard with Metabase using SQL query connected from MySQL database
 - Deliver workshop for client to use AWS for Data Analytics use case
 - Develop Anomaly detection models which deployed on AWS Lambda triggered with AWS API Gateway
- Technology Used:** AWS Cloud, github, pandas, docker, jupyter notebook, pytest, boto3, Metabase

AI Engineer (Freelance)

PT. Inti Sinergi

Feb 2021 – May 2021

South Jakarta, Jakarta

- Build OCR API to extract information from KTP (identity card) using FastAPI to speed up validation process using KTP
- Build OCR API to extract information from SIM (diver license card) using FastAPI to speed up validation process using SIM
- Decrease waiting time for identity authentication and increase matching accuracy between face photo to more than 70% with REST API using Flask to match selfie photo with KTP
- Build focus detection system using javascript and tensorflow.js for React app that give notification real-time and help examiners to supervise the exam

Machine Learning Engineer

PT. Sugihart Digital Imaji

Aug. 2019 – Jan. 2021

Duren Sawit, Jakarta

- **People Counting**
Build computer vision models with to detect person for retail industry or department store to generate visitor data and gain insight for advertising their products.
 - **People Density Heatmap**
Derived from people detection models, develop people crowd density system and visualize it through heatmap where red color means higher density area and green color means less density area to gain insight which area is the most crowded on specific time.
 - **People Trajectory**
Derived from people detection models, develop people trajectory system to analyze trajectory of people walking on specific marked area to another marked area to gain insight which area is most people walk by.
 - **Gender Counting**
Build computer vision models to detect gender for department store to generate visitor data and gain insight for advertising their products with more detailed insight about male and female.
 - **Face recognition attendance system**
Build face recognition for company attendance system with real time speed to monitoring employees and integrated it with Kiosk. The system speeding up the attendance checking time no more than 2 seconds with accuracy more than 97%.
 - **Indonesian License plate Recognition**
Build license plate recognition specific for Indonesian plate with accuracy more than 90% on different angle and robust to light condition.
- Technology Used:** opencv, Tensorflow, Pytorch, Darkflow, Yolo, TensorRT, jupyter notebook, MySQL, netron, onnx, threading

Data Science Engineer

Kurio

Sept. 2018 – Feb 2019

Slipi, Jakarta

- **Build sensitive classifier**

Build and test machine learning model to filter inappropriate articles start from gathering article data, labelling, pre-processing, training, testing, until make an endpoint to deploy the classifier as a service.

- **Build Category Classifier**

Build machine learning model similar to sensitive classifier, but with various category such as tech, sport, politics, gadget, e-sport, etc and validate the model to achieve up to 95% accuracy.

- **Annotator for News Data**

Annotate thousands of news data into various categories to maintain quality of model classifier.

Technology Used: pipenv, pyenv, mongoDB, jupyter notebook, docker, google cloud platform, flask, spacy, github, jira

Junior Data Scientist

Oct. 2017 – Jan. 2018

Metra Digital Media

Pancoran, Jakarta

- **Web Crawling**

Web Crawling and update data then load it to server data using python.

- **Clustering**

Clustering and analyze data for campaign needs and visualize it based on region by density, salary, religion, etc..

- **Data Gathering**

Data management and querying using SQL for report needs.

Technology Used: SPSS, R, MySQL, jupyter notebook, zeppelin, hadoop

FREELANCE AND PERSONAL PROJECTS

Course Description Recommendation

February 2021

- Research on pretrained transformer model to be used for scoring sentence similarity
- Deploy the model in AWS Lambda and triggered as API using AWS API Gateway

Technology Used: Python, AWS Lambda, AWS API Gateway, SentenceTransformer

Telegram Image Matting

February 2021

- Developed an image matting bot that extract person from background
- Send back the extracted person from background to client

Technology Used: Python, Flask, React, Telegram Bot, MODNet

Social Distancing Drone JDERobot Simulation

Aug. 2020

- Developed a social distancing drone simulation in JDERobot using ROS
- Build road follower using color segmentation when simultaneously detecting people and their distance
- Controlling drone movement based on segmented road

Technology Used: ROS, JDERobot, Gazebo Yolov3

TECHNICAL SKILLS

Python: beautifulsoup, featuretools, flask, joblib, matplotlib, numpy, pandas, seaborn, scikit-learn, scipy, spacy, unittest, plotly, pyspark, request, opencv, PIL, imutils, opencv, threading

R: caret, dplyr, ggplot

Matlab: image processing

SQL: MySQL, Postgre, NoSQL

Cloud: AWS

CERTIFICATE

Computer Vision Nanodegree | July 2020

Udacity

- Learn about facial keypoints, image captioning, and SLAM algorithm

Deep Learning Nanodegree | June 2020

Udacity

- Predicting bike sharing, face generation using GAN, and deploy sentiment analysis to Amazon Web Service.

DeepLearning.AI Tensorflow Developer | June 2020

Deeplearning.ai

- Course from deeplearning.ai on using tensorflow for computer vision, NLP, and time series.

Bangkit Participant | Aug. 2020

Google

- An exclusive machine learning academy led by Google, Gojek, Tokopedia, and Traveloka.

Artificial Intelligence | Aug. 2019

Kominfo, Depok

- Digitalent Scholarship in Artificial Intelligence, Fakultas Teknik UI, Depok

OPEN SOURCE CONTRIBUTOR

JaidedAI/EasyOCR: Optical Character Recognition library that support 70+ languages

PUBLICATIONS

Journal | Feb. 2021

JIKI, Depok

- Comparison of FairMOT-VGG16 and MCMOT Implementation for Multi-Object Tracking and Gender Detection on Mall CCTV

Conference | December 2020

IEEE R10 HTC, Malaysia

- Developing Smart COVID-19 Social Distancing Surveillance Drone using YOLO

Conference | Aug. 2017

Symomath, Bandung

- Detection of Diabetic Retinopathy on Retinal Images using Naive Bayes

ACHIEVEMENTS

National Data Science Competition (NDSC) | Nov. 2020

Shopee

- Top 10 for Product Matching task in Advanced Category competition out of 139 teams with team name Babay