

# Joshua Teguh Santoso

Graduate Student in Information Sciences at Tohoku University.

Passionate about Software Engineering, Data Science and Transportation Sciences.

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## Technical Skill

### Programming languages:

Python, Java, JavaScript, C/C++,  
Dart, HTML/CSS, SQL

### Frameworks:

Django, Django REST, Flutter

### Technologies / Tools:

PostgreSQL, Git/Github, Docker,  
Google Cloud Platform (GCP)

## Education

### Candidate for Master of Science in Information Sciences

Tohoku University, Sendai, Japan,  
April 2022 – March 2024 (Expected)

### Bachelor of Engineering in Mechanical and Aerospace Engineering

Tohoku University, Sendai, Japan,  
October 2017 – September 2021,  
CGPA: 3.09

## Language Skills

### English: Business Level

- TOEFL iBT: 102/120  
June 2021

### Japanese: Business Level

- JLPT N1 Level: Passed (106/180)  
December 2022

### Indonesian: Native Speaker

## Certifications

- IT Passport Examination: Passed  
October 2022

## Awards

- Recipient of Scholarship from  
Sato Yo International  
Scholarship Foundation (SISF) –  
April 2022

## Interests

Photography, Travelling, Reading

## Relevant Experience / Projects

### Trip Planner Mobile App

February 2023 – present

- Built a mobile app to find an optimal trip itinerary with **Flutter** framework with utilizing **Google Maps API** and **Django REST** framework as the backend to be submitted for 2023 Google Developer Solution Challenge.
- Responsible for developing and testing the backend API in a containerized environment by using **Docker** with **PostgreSQL** for the database.

### Research on the effect of Mobility-as-a-Service (MaaS) platform on transportation network by agent-based simulation

October 2021 – present

- Currently conducting research on the effect of MaaS by developing an extension in agent-based transportation simulator in **C++** and **Java**.

### Personal Website

February 2022

- Developed a personal website to showcase personal projects by using **HTML/CSS** and **JavaScript**

### Visualisation of Static User Equilibrium assignment problem

December 2020 – January 2021

- Built a solver for static user equilibrium assignment problem in **Python** that can solve a relatively large network (24 nodes/76 links) in less than 12 seconds and used **NetworkX** package for visualisation of the result.

### Finding Waldo

October 2019 – December 2019

- Created and trained a Haar Cascade object detection to find Waldo from 'Where's Waldo?' series by using **OpenCV** framework on top of **Python**.

### Car Navigation System

December 2018 – January 2019

- Built a GUI-based car navigation system by using **C** language and **OpenGL** framework developed in **Linux** (Ubuntu) environment.

## Extracurricular Activities

### Member – Google Developer Student Clubs Tohoku

November 2022 – present

- Organize and prepare materials as well as example code for workshops.

### Individual participant of Behaviour Modelling Summer School 2021

September 2021

- Teamed up with the other individual participants to analyse GPS data and to create behaviour discrete choice model in **Python**.