

## Contact

[www.linkedin.com/in/desmondyeoh](https://www.linkedin.com/in/desmondyeoh)  
(LinkedIn)  
[dyeoh.com/](https://dyeoh.com/) (Personal)

## Top Skills

Computer Science

Machine Learning

Research

## Certifications

Go: The Complete Developer's  
Guide (Golang)

Machine Learning with TensorFlow  
on Google Cloud Platform  
Specialization

Feature Engineering

Launching into Machine Learning

How Google does Machine Learning

# Desmond Y.

Data Scientist at Shopee  
Singapore

## Summary

- Data Scientist in Shopee's Machine Learning Platform & Infra DS team.
- Currently building up Internal Data Science products to improve Data Scientists' productivity in Shopee Singapore.
- Have a background in Applied AI Research (Financial credit underwriting, User behavior profiling, Networking fraud detection) & Full-Stack Software Development (ReactJS, NodeJS, Flask, Django, etc).
- Graduated with First Class Honours (CGPA 3.94/4.00) from Bachelor of Computer Science (Artificial Intelligence), University of Malaya.

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## Experience

Shopee

Data Scientist

September 2020 - Present (8 months)

Singapore

- Data Scientist (Machine Learning Platform & Infra)
- Exploring machine learning platforms and infrastructures
- Building Shopee's internal Data Science systems to improve data scientists' productivity

National University of Singapore

Research Assistant

March 2020 - September 2020 (7 months)

Singapore

- RA in the NUS-SingTel Cybersecurity R&D Lab
- Conducted research on semi-supervised machine learning models for fraud prediction
- Implemented one-class models (LSTM-Encoder Decoder, OCCRF, Isolation Forest, DBSCAN, LOF) on real-life enterprise networking data
- Worked on labeling of data using heuristics and alternative data sources

- Proposed new metric to evaluate performance of ML models on Positive-Unlabelled data
- Documenting methods, experiments & results in LaTeX for paper publishing

## MoneyLion

2 years 1 month

### AI Researcher

February 2019 - February 2020 (1 year 1 month)

Kuala Lumpur, Malaysia

- Conducted AI research on Explainability and Interpretability of deep learning models on financial time series data
- Performed end-to-end data extraction, data cleaning & feature engineering on real-life bank transactions data using SQL, pandas, numpy, scikit-learn
- Customized published state-of-the-art deep learning model to organisation's need
- Implemented multi-processing codes to run experiments on 32-core distributed cloud & Nvidia Tesla GPU (on AWS HPC & GPU Cloud)

### AI Researcher

August 2018 - January 2019 (6 months)

Kuala Lumpur, Malaysia

- Conducted research on mobile apps & website clickstream data
- Train and evaluated multiple unsupervised fraud prediction models (LSTM, DBSCAN, Encoder-Decoder, GAN models) on application clickstream data
- Performed user behavior modelling on website and mobile app
- Worked with fraud detection team on evaluating unlabelled prediction from models

### AI Researcher

February 2018 - July 2018 (6 months)

Kuala Lumpur, Federal Territory of Kuala Lumpur, Malaysia

- Conducted research on micro-loan credit scoring (Real-life data)
- Evaluated multiple supervised machine learning models (Random Forest, Decision Trees, Simple Neural Network, Gradient Boosted Trees) to predict loan default
- Performed feature engineering to improve models' performance

## University of Malaya

### Teaching Assistant

February 2017 - January 2020 (3 years)

Kuala Lumpur, Malaysia

- Teaching Assistant in 5 different classes (each lasted 6 months)
- Helped lecturers to prepare challenging quizzes, interesting assignments, & evaluation methods for students.
- The detailed list of classes & lecturers:-
  1. 2020 - Fundamentals of Programming Lab (Lecturer: Dr. Muhammad Shahreeza Safiruz bin Kassim)
  2. 2020 - Computer System Organisation Lab (Lecturer: Dr. Tey Kok Soon)
  3. 2019 - Data Structure Tutorial (Lecturer: Prof. Dr. Loo Chu Kiong)
  4. 2019 - Data Structure Lab (Lecturer: Assoc. Prof. Dr. Chan Chee Seng)
  5. 2017 - Fundamentals of Programming (Lecturer: Dr. Liew Chee Sun)

### Neruti Technology Sdn Bhd

#### Software Engineer

May 2017 - June 2017 (2 months)

Kuala Lumpur, Malaysia

- Developed a Drag & Drop UI in React JS to build machine learning models
- Tech stack: ReactJS, Python, Django, Django REST framework and Apache Maven

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## Education

### University of Malaya

Bachelor of Computer Science (Artificial Intelligence), Artificial Intelligence · (2017 - 2020)

### Tsinghua University

Deep Learning Summer School · (2019 - 2019)

### University of Indonesia

Southeast Asia Machine Learning School (SEAMLS) · (2019 - 2019)

### Malacca Matriculation College

Physics, Chemistry, Biology, Maths · (2015 - 2016)