Abram Perdanaputra Situmorang

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Education

Institut Teknologi Bandung — **Bandung, Indonesia**
Bachelor of Computer Science — *Expected Graduation : July 2020*

- **Cumulative GPA: 3.86 / 4.0** *(4 semester)*

Experience

ML@ITB — **Bandung, Indonesia**
Co-Founder — *May 2018 – Present*

- A student-run Machine Learning Community in ITB that encourages member to learn and explore new things in the field of Machine Learning. Organized member meeting and study group.
- Technologies used: MATLAB, NumPy, Scikit-Learn, Keras.

Dagozilla — **Bandung, Indonesia**
Programming Squad — *August 2018 – Present*

- Programming squad in ITB's Robocup Medium Sized League (MSL) team. In charge of building the whole software side system of the robot. This includes the perception (Vision & Localization), communication (Socket), and the strategy (Decision Tree). Implemented vision based Robot Self-Localization.
- Technologies used: OpenCV, ROS, Python.

Bukalapak — **Jakarta, Indonesia**
Software Engineering Intern | Backend - Chat Team — *December 2017 – March 2018*

- Implemented a generic chatbot engine system that can host multiple bot logic, which allows user to change active bot, add, delete, update the bot including the REST API using MongoDB for the bot management and Built the first LINE messaging API library for Elixir.
- Technologies used: Elixir, MongoDB.

Achievements

- **[Asia] - Finalist of the South East Asia Indonesia 2018 ACM-ICPC** *October 2018*
  Finished 41st out of 500+ contestants from the whole country.
- **[International] - PyTorch Scholarship Challenge from Facebook awardee (Udacity)** *October 2018*
  A scholarship program announced at the PyTorch Developer Conference that offers participants the opportunity to acquire cutting-edge skills in deep learning using PyTorch, and earn full scholarship to Udacity's Deep Learning Nanodegree program.

Side Projects

Pro-Book (github.com/abrampers/pro-book-v2**)** *October 2018*

- Microservice based bookstore web application. Created a mini bank webservice and bookstore web service to serve the main Pro-Book application.
- Technologies used: Node.js, JAX-WS, Maven, PHP, HTML, CSS, JavaScript.

Berudu (github.com/abrampers/berudu-ios**,** github.com/adhipradhana/berudu-backend**)** *August 2018*

- High performance and user friendly one stop news app used to aggregate articles to give a personalized feed to the user.
- Technologies used: JavaScript, Node.js, React Native, Swift, MongoDB, MEAN stack.

Sliding Window Protocol (github.com/ffahleraz/sliding-window-protocol**)** *October 2018*

- Implemented a vanilla Sliding Window Protocol using UDP Socket to achieve lossless data transfer
- Technologies used: C++, C.

Reinforcement Learning Agent Pong (github.com/mlitb/pong**,** github.com/mlitb/pong-cnn**)** *September 2018*

- Implement a Vanilla RL Agent to play Atari game Pong on OpenAI Gym Environment by using only NumPy library and using Keras for the Convolutional Neural Network (CNN) version.
- Technologies used: Keras, NumPy, Python.

Skills & Interests

- Languages: Java, C/C++, Python, JavaScript, Swift, MATLAB, OCTAVE, Haskell, Elixir, PHP, C# (**Language agnostic**).
- Technologies: Node.js, ROS, OpenCV, React, React Native, MySQL, PostgreSQL, Maven, MongoDB, Git, Keras, NumPy, Scikit-Learn,.

Certification

Coursera - Machine Learning by Andrew Ng *July 2018*

- High level of understanding in Machine Learning concepts: Regularization, Backpropagation, Bias & Variance analysis, Machine Learning System Design, PCA, Large Scale Machine Learning, Learning Algorithm Evaluation. Implemented Linear Regression, Logistic Regression Classifier, Neural Networks, SVM, K-Means using MATLAB.