Samuel Lee (Jia Khai)

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Experiences

Software Engineer Microsoft *Bellevue, Washington* *May 2020 – Present*

- Microsoft Teams.

Software Engineer (Siri Language) Apple Inc. (Advantis) *Cupertino, California* *Oct 2018 – May 2020*

- Implemented data pipeline automation tools and Named Entity Recognition (NER) tools to automate data transformations, increased work efficiency which minimized hours of work to minutes with precision and accuracy.
- Built an Automatic Speech Recognition (ASR) tool using Keras to detect incorrect dictation English and Malay words using LSTM with >85% accuracy. This began as a side project that I drove to completion as I am interested in Machine Learning.
- Developed a data crawling tool and performed pre-processing to extract and transform results to be in a usable format. This is to create an alternative source for data ingestion.
- Development on Siri for Malay language with data cleaning and bug fixing.

R&D Software Engineer Intel Corporation *Penang, Malaysia* *June 2017 – Sept 2017*

- Created Quality Assurance (QA) Regression Framework to automate 10+ vigorous tests as a nightly regression. This framework shortened regression testing time from (up to) 2 days to an hour.
- Performed development and code debugging on a C++ based in-house schematic visualization tool for Intel engineers. Managed to solve problems the tool has been facing, resulting a improving user experience and performance of the tool.
- Implemented new features to provide useful information for the user and fixes to major bugs. This development was carried out in a remote Unix server which results in my interest in using terminals for simple actions.

Projects

samueljklee.me (Collection of Personal Projects) *California, US* *Sept 2019 – Present*

- Pneumonia Detection (*Github*) - Created a Pneumonia Detection model with 82% accuracy. Classification built using Transfer learning technique on VGG16 pre-trained model using Keras and Tensorflow 2.
- Image Classifier - A Flask web app to perform image classification using Keras and ResNet50 CNN model.

CoronaTracker *(coronatracker.com)* Open Source Project *Remote, MY-US* *Jan 2020 – May 2020*

- Community powered web application to provide the latest stats and news sources worldwide.
- Developed the Full Stack of the web app from backend API layer to frontend integration and user interface using *Vue.js*, *Node.js*, *Express.js*, *REST*, and *MySQL*.
- Created a web crawler to extract numerious news sources to provide the most up-to-date articles regarding COVID-19 using *Python*.

Technical Skills

- Python, GoLang, C/C++, SQL, Bash, Shell, XML, HTML, CSS, Javascript
- Git, Django, Flask, PostgreSQL, Keras, TensorFlow
- BigQuery, Google Cloud Platform, Tableau, Vim, Unix/Linux environment
- REST API, RegEx (Regular Expression), Data (Cleaning/Processing), Feature Engineering, ETL (Extract Transform Load)
- Agile, TDD (Test Driven Development), Continuous Integration, Object-Oriented Programming, Multi-Threading

Education & Others

Oregon State University (OSU) *Corvallis, Oregon* *Sept 2015 – June 2018*

- **Degree:** Bachelor of Science in Electrical and Computer Engineering
- **Related Courseworks**: Operating System, Data Structure, Analysis of Algorithm, Distributed Systems, Machine Learning.

Volunteering

- Volunteered to mentor 100 students at Google Cloud Study Jam for hands on Machine Learning experiences using Google Cloud Platform.

Interest Area

- Backend Development, Machine Learning. Building highly scalable infrastructure, Working on cutting edge technology, Making cool things that change people's lives.