Kohei Suzuki
Machine Learning Engineer
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Summary

Developed an iOS app, DeepColors that helps users colorize sketches and grayscale images, by using the power of DeepLearning.
One of highly self-motivated Machine Learning Engineers with 3 years of ML experience including 6 months of internship at a startup where tried to solve Cocktail Party Problem by applying state of the art technology in DeepLearning.
Looking for a full time job in the Vancouver area and already have a valid work permit for one year in Canada.

Personal Projects

DeepColors app for iOS
Aug 2020 - Present

AppStore: **https://apps.apple.com/us/app/deepcolors/id1540025064**
- **A mobile app for iOS** that helps users colorize grayscale images and sketches that they draw, by using the power of DeepLearning. The app has got 500 downloads in the first 2 months and has average 10 daily active users at this point (Jan/15th/2021).
- Trained **GANs** on GPUs on **GCP** by following original papers, created the client-side in **SwiftUI** and **Swift**, set up the server with **Flask** and **Apache2** on **Ubuntu** on GCP, used **Firebase** for the app analytics, and implemented **Admob** for the monetization.
- Took about 3 months to publish the app from the day I learned how to create a view printing out "Hello World" in a View on iOS.
- The app will have a higher quality colorizing model for sketches which will be available for users with monthly subscription.

Speech-To-Text app with Flask
Jul 2020 - Aug 2020

Github: **https://github.com/boblef/auto_transcript**
- Was a **Flask** app in which user can upload a video or an audio file and can download a zip file that contains files of transcripts of the speech in the file they uploaded.
- It took audio from the video they uploaded and converted to 1-D Numpy array fed into Baidu's DeepSpeech model after pre-processing was done. The output from the model was then fed into a language model to improve the prediction accuracy.

Working Experience

Freelance Developer in Yokohama, Japan
Apr 2020 - Present

Machine Learning related and Python development
Was not supposed to work as a freelance because initially was supposed to come back to Canada from my country, Japan as soon as my visa got ready. Due to the pandemic, it was unclear when could come back so I started working as a freelance.

- Developed an iOS app, DeepColors, by using the power of DeepLearning.
- Worked as a mentor for students of online courses in order to gain skills such as clear explanation and leaderships.
- Joined a team working on a data science project that inspired me with different perspectives and insights.
- Worked on some Python projects such as creating simple websites and scraping to collect data from the web.

Singular Software Inc. in Vancouver, Canada
Jan 2019 - Jun 2019

Machine Learning engineer intern
Singular Software is a company developed a phone-based hearing assistive app, HeardThat which was debuted at CES 2020, that helps people to hear speech in noisy situations by using the power of deep learning. The company was nominated at the top 10 out of about 200 in the New Venture BC 2019 competition and was also the winner of 2020 What's Next Innovation Challenge.

Reference from the CEO, Bruce Sharpe:
https://boblef.github.io/docs/Reference_letter_for_Kohei%20Suzuki.pdf

- Joined the team in the early development phase, and took initiative on the role of creating several platforms with **Flask** and Javascript for model evaluation, constructing database with **SQLite** where results of the evaluation were kept, implementing, and training machine learning models.
- Developed internal and external platforms with **clarified documentation**. The external platform was for Mechanical Turk to collect scores for each data sample that was used to calculate metrics. The internal system was a Flask application by mainly using **Matplotlib**, **Numpy,** and **Scipy** where team members could see waveform and spectrogram of any audio files and play around with them interactively.
- Presented members the result of evaluation with appropriate metrics such as **WER** and **MOS**.
- Worked with team members in an **agile** way by changing things as we needed and learned how **Scrum** works. Since the internship was **remote**, gained necessary skills such as **SSH** on **Ubuntu**, **good communication skills** with both verbal and written English with concise explanations.

Education

-	GCI2019 at the University of Tokyo	Dec 2019 - Mar 2020
-	Machine Learning Bootcamp at 7 Gate Academy	Jul 2019 - Sep 2019
-	Institute of Technology Development of Canada	Jul 2019 - Jun 2019
	Calculative GPA: 3.7/4.0	
-	Data Science Bootcamp at Brain Station Vancouver	Apr 2018 - Jun 2018
-	Bachelor Degree in Computer Science at Tokyo City University	Apr 2012 - Apr 2013

Skills

Programming Languages: Python, C/C++, Swift, SwiftUI, SQL, Java, Bash
Machine Learning: Computer Vision, NLP, Time Series, Reinforcement Learning, Classic ML Algorithms
Python Libraries: Tensorflow, PyTorch, Pandas, Numpy, Matplotlib, OpenCV, Sklearn, Jupyter Notebook, Flask, unittest
OS: Linux, MacOS
Others: AWS (EC2, DynamoDB, CloudWatch), GCP, Github, iOS app development, Docker, CircleCI, Scrum, Agile, Algorithms and Data structures, Quantum programming (Dwave-Ocean-SDK)