

## Summary

Developed an iOS app, DeepColors, that helps users colorize sketches and grayscale images, by using the power of DeepLearning. A self-taught Machine Learning Engineer with 3 years of ML experience including 6 months of internship at a startup in Canada. Coding and solving problems with appropriate algorithms, data structures, and metrics are also my hobbies, and I can not live without them. Able to meet tight deadlines while providing quality work and have outstanding analytical skills with the ability to be creative and to find solutions to complex problems.

## Personal Projects

- **DeepColors app for iOS** Aug 2020 - Present  
AppStore: <https://apps.apple.com/us/app/deepcolors/id1540025064>  
Website: <https://www.deepcolors-ai.com/>
  - A mobile app for iOS that helps users colorize grayscale images and sketches that they draw, by using the power of DeepLearning.
  - Has got 1.2k downloads in the first 6 months and has an average of 20 daily active users at this point (May 13th, 2021).
  - Increased 15% of conversion rate by designing high-quality app screenshots displayed on AppStore.
  - Increased 150% profit by applying Admob mediation, which serves ads that likely have the highest eCPM among ad sources.
  - Trained GANs, deployed on GCP, built client-side in Swift from scratch, set up Firebase and Admob for analytics and monetization purposes, and implemented the backend with Flask and Apache on Ubuntu.
- **Speech-To-Text app with Flask** Jul 2020 - Aug 2020  
Github: [https://github.com/boblef/auto\\_transcript](https://github.com/boblef/auto_transcript)
  - A Flask app in which users can upload a video or an audio file and can download a zip file that contains files of transcripts generated by trained DeepLearning models.
  - Takes the audio from the video they uploaded and converted it to a 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 quality of the English sentences.
- **Twitter financial sentiment analysis** Jul 2020- Jul 2020  
Github: [https://github.com/boblef/twitter\\_sentiment](https://github.com/boblef/twitter_sentiment)
  - A Flask application deployed with Docker in which users can enter hashtags and keywords that they want to stream on and they can see the information of tweets collected such as the text, the date of the post, sentiment scores, and so on.
  - Fine-tuned a pre-trained NLP model to analyze the sentiment of tweets, and used CircleCI for testing and deployment purposes.

## Working Experience

- **Freelance Developer** in Yokohama, Japan Apr 2020 - Present
  - Developed an iOS app, DeepColors, by using the power of DeepLearning.
  - Teach Machine Learning and Data Science as a mentor on an online platform called Aidemy.
  - Working on creating Python-related courses on Udemy.
- **Machine Learning Engineer Intern** at Singular Software Inc. in Vancouver, Canada Jan 2019 - Jun 2019  
Reference from the CEO, Bruce Sharpe: [https://boblef.github.io/docs/Reference\\_letter\\_for\\_Kohei%20Suzuki.pdf](https://boblef.github.io/docs/Reference_letter_for_Kohei%20Suzuki.pdf)

Singular Software is a company that 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.

  - Joined the team in the early development phase, and took initiative on the role of creating several platforms for model evaluation.
  - Designed and developed an internal software with clarified documentation and presented ideas for an external platform for Mechanical Turk and developed it and databases that I constructed to keep track of data used to calculate metrics such as WER and MOS.
  - The internship was a remote-based that helped me growing up 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  
Matriculated

## 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

**Others:** AWS, GCP, Github, iOS app development, Docker, CircleCI, Agile (Scrum), Algorithms and Data structures