

Min Young Chang

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Education

Columbia University

M.S. Computer Science

Dec. 2021

New York, NY

Cornell University

B.S. Mechanical Engineering

Aug. 2019

Ithaca, NY

Experience

Software Engineer

Google

Feb. 2022 – Present

Mountain View, CA

- Migrated and owned a centralized write system that processes 200K+ QPS of real time user data from the Play Store (C++).
- Designed and owned an offline batch job that read, write and modifies the user data from the Play Store (Flume).
- Created and owned alerts and monitoring system for the realtime and sub-realtime write system (GMon).
- Main Point of Contact between the Play Store User Data Systems and the Google Display Ads.

Machine Vision Intern

InterDigital

May 2021 – Aug. 2021

New York, NY

- Researched on differential clustering of point cloud through unsupervised learning (PyTorch).
- Developed heterogeneous batching algorithm to batch input point clouds with different sizes for Autoencoders.
- Developed synthetic Point Cloud dataset generation code used for testing and training models.
- Designed dataloader for Point Cloud datasets with on-the-fly data augmentation.

Machine Learning Engineer

NAVER Corp

Sep. 2019 – Aug. 2020

Seongnam, Korea

- Developed deep learning module for lane detection to automate annotation process of road map data. (TensorFlow)
- Achieved 93.5% recall rate and 97.8% precision rate for road images of urban areas with high traffic.
- Managed communication between 3+ teams from different departments working on this project.
- Educated and managed 30+ data annotators for labeling a large, complicated Korean road data set.
- Researched on place recognition for an indoor mapping robot with VLP-16 LiDAR sensors. (TensorFlow, PyTorch)
- Achieved over 98% recall rate for place recognition at a crowded department store.
- Accomplished 3X accuracy and 2X recall rate of the SOTA place recognition algorithms.
- Wrote a conference paper as first author, and was accepted to IEEE IROS 2020.
- Pre-processed large, messy 3D point cloud data of VLP-16 LiDAR sensors.
- Proposed and developed a method to remove moving objects in a series of 3D point cloud data.

Publications

SpoxelNet: Spherical Voxel-based Deep Place Recognition for 3D Point Clouds of Crowded Indoor Spaces

IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2020. Las Vegas, USA.

Min Young Chang, Suyong Yeon, Soohyun Ryu, Donghwan Lee

Technical Skills, Language Skills, and Interests

Programming Languages: Python (TensorFlow, PyTorch), Swift (ARKit, Core ML), Java, SQL, MATLAB

Others: PostgreSQL, GCP, Git, Linux, ROS, HTML

Extracurricular

Sergeant / Interpreter

Republic Of Korea Army Special Forces

July 2016 – Apr. 2018

Sweihan, United Arab Emirates

- In charge of external relations and communication with UAE Ministry of Defense and Special Warfare.
- Conducted and interpreted Weekly Joint Staff Meetings and Daily Mission Brief.
- Participated in joint trainings of Special Warfare and Counter-Terrorism with UAE Special Forces.