Suro Lee

New York, NY | Canadian citizen | 929-575-1938 | <a href="style="style-

EDUCATION

Columbia University

Dec 2023 (expected)

Master of Science - Computer Science, Machine Learning Track

New York, US

• GPA: 4.08

Korea Advanced Institute of Science and Technology (KAIST)

Dec 2021

Bachelor of Science - Computer Science, Specialization in Artificial Intelligence

Daejeon, Korea

Minor in Electrical Engineering

TECHNICAL SKILLS

Languages: Python, C++, JavaScript

 ${\bf Mobile\ Development:\ Android\ Studio,\ Flutter,\ Unity}$

Machine Learning: PyTorch, TensorFlow

Distributed Systems: Apache Kafka, Apache Spark,

Web Development: HTML, CSS, Svelte, Flask,

Apache HBase

Developer Tools: Docker, GitHub

Bootstrap, Node.js

EXPERIENCE

Columbia University

Sep 2022 – May 2023

New York, US

Teaching Assistant (Spring 2023, Fall 2022)

• Competitive Programming: Supported 220+ undergraduate/graduate students prepare for ICPC contests by holding weekly office hours that cover solutions to challenging problems

• Computing for Business Research: Supported 70+ graduate students in Python, MATLAB, C, Bash, R, MySQL, TensorFlow, and Git by holding weekly office hours

Samsung Research

Jan 2022 – Jul 2022

Seoul, Korea

Software Engineer, Visual Perception Team

AI Recipe Navigation

- Led the full-stack development of an interactive recipe navigation web demo with 2000+ lines of Python and JavaScript code using Node.js, Flask, Svelte, Bootstrap, and Mosquitto
- Deployed three state-of-the-art AI models and managed communication between the models using the MQTT and FlexBuffers

AI Cooktop

• Developed an ingredient detection demo that uses a projector and a homography matrix to display detection results on a kitchen table and suggest appropriate recipes based on the ingredients

KAIST INA Lab

Feb 2021 – Sep 2021

Daejeon, Korea

 $Undergraduate\ Researcher$

Project: Content-Aware and Task-Aware Variable Rate Image Compression using Compressive Autoencoders

- Exploited content-specific redundancies by training a compressive autoencoder with a dataset consisting of only one type of content such as faces (i.e., CelebA Dataset), achieving up to 2% improvement in terms of PSNR
- Optimized the compressive autoencoder for a task-specific loss instead of a perceptual loss, which outperformed JPEG in image classification up to 11% in terms of accuracy for low resolution images

Koh Young Technology

Mar 2019 - Aug 2019

Yongin, Korea

Research Intern, Machine Intelligence Team

- Implemented a prototype for a distributed, real-time SMT (surface-mount technology) inspection process using Apache Kafka, Apache Spark, and Apache HBase—which was later developed into a successful full-fledged product
- Achieved up to 10x speed up from batch processing, significantly decreasing the number of defects in the solder paste printing process

Extracurricular Activities

2022 ICPC Greater New York Regional Contest

Feb 2023

• 16^{th} out of 78 teams in the Greater New York Region

2022 ICPC North American Qualifier

Feb 2023

• 4th out of 64 teams in Columbia University