

# Suro Lee

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## EDUCATION

<b>Columbia University</b> <i>Master of Science – Computer Science, Machine Learning Track</i> <ul style="list-style-type: none"><li>GPA: 4.08</li></ul>	Dec 2023 (expected) New York, US
<b>Korea Advanced Institute of Science and Technology (KAIST)</b> <i>Bachelor of Science – Computer Science, Specialization in Artificial Intelligence</i> <i>Minor in Electrical Engineering</i>	Dec 2021 Daejeon, Korea

## TECHNICAL SKILLS

<b>Languages:</b> Python, C++, JavaScript <b>Machine Learning:</b> PyTorch, TensorFlow <b>Web Development:</b> HTML, CSS, Svelte, Flask, Bootstrap, Node.js	<b>Mobile Development:</b> Android Studio, Flutter, Unity <b>Distributed Systems:</b> Apache Kafka, Apache Spark, Apache HBase <b>Developer Tools:</b> Docker, GitHub
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## EXPERIENCE

<b>Columbia University</b> <i>Teaching Assistant (Spring 2023, Fall 2022)</i> <ul style="list-style-type: none"><li>Competitive Programming: Supported 220+ undergraduate/graduate students prepare for ICPC contests by holding weekly office hours that cover solutions to challenging problems</li><li>Computing for Business Research: Supported 70+ graduate students in Python, MATLAB, C, Bash, R, MySQL, TensorFlow, and Git by holding weekly office hours</li></ul>	Sep 2022 – May 2023 New York, US
<b>Samsung Research</b> <i>Software Engineer, Visual Perception Team</i> AI Recipe Navigation <ul style="list-style-type: none"><li>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, and Bootstrap</li><li>Deployed three state-of-the-art AI models and managed communication between the models and the server using gRPC, MQTT, and FlexBuffers</li></ul> AI Cooktop <ul style="list-style-type: none"><li>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</li></ul>	Jan 2022 – Jul 2022 Seoul, Korea
<b>KAIST INA Lab</b> <i>Undergraduate Researcher</i> Project: Content-Aware and Task-Aware Variable Rate Image Compression using Compressive Autoencoders <ul style="list-style-type: none"><li>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</li><li>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</li></ul>	Feb 2021 – Sep 2021 Daejeon, Korea
<b>Koh Young Technology</b> <i>Research Intern, Machine Intelligence Team</i> <ul style="list-style-type: none"><li>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</li><li>Achieved up to 10x speed up from batch processing, significantly decreasing the number of defects in the solder paste printing process</li></ul>	Mar 2019 – Aug 2019 Yongin, Korea

## EXTRACURRICULAR ACTIVITIES

<b>2022 ICPC Greater New York Regional Contest</b> <ul style="list-style-type: none"><li>3<sup>rd</sup> out of 23 teams from Columbia University</li><li>16<sup>th</sup> out of 78 teams in the Greater New York Region</li></ul>	Feb 2023
<b>2022 ICPC North American Qualifier</b> <ul style="list-style-type: none"><li>4<sup>th</sup> out of 64 teams from Columbia University</li></ul>	Feb 2023