### Tak-Ho Lee

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### **EDUCATION**

## **CARNEGIE MELLON UNIVERSITY (CMU)**

Pittsburgh, PA

Bachelor of Science, Information Systems; GPA: 3.89/4.0

Expected Graduation: May 2023

- Minors: Software Engineering and Computer Science
- Technical Skills: Python 3, Java, JavaScript/Typescript, Node.js, SQL (MySQL 5.7, PostgreSQL), HTML/CSS, RESTful API, Swagger API, SpringBoot, Bootstrap 4.6, Express.js, MongoDB, Ruby on Rails, Dart/Flutter, C, OOP Design Patterns
- Relevant Coursework: Application Design and Development (Ruby on Rails), Imperative Computing (C), Database Design and Development (SQL, MongoDB, Redis), Software Construction (TypeScript, OOP Design Patterns), Machine Learning, Software Engineering for Startups (React, GCP, Express), Computer Systems (C)
- Languages: Fluent in Korean, English; Conversational Spanish

### **EXPERIENCE**

Remote, USA Loom

Incoming Software Engineering Intern

Jun 2022 -Aug 2022

Working in Integrations Team; developing Loom SDK, a javascript SDK for recording/embedding Loom videos

# **Institute of Software Research (ISR)**

Pittsburgh, PA

Research Assistant under Dr. Christian Kaestner

Dec 2021 - present

- Assessing the sustainability of npm, PyPI, Packagists open-source systems with repository commits, issues, versions, etc.
- Quantitatively explored data to assess open-source systems' lifecycles. Submitted poster to Meeting of Minds 2022.

**Fasoo** Seoul, South Korea

Software Engineering Intern

Jun 2021 – Aug 2021

- Collaborated with intern team to redesign the admin site for the company's note-taking application, DigitalPage
- Created 30+ MySQL queries to analyze meaningful data from over 600,000 data points on SpringBoot Framework; employed d3.js to create statistical graphs about the user base/activity; used Bootstrap 4.6 for front-end and Vanilla JS/AJAX; deployed website with AWS Lambda
- Developed DigitalPage's home page according to the app's new design language using HTML/CSS/JS

SK TELECOM (SKT) Seoul, South Korea

Summer Intern

Project

Jun 2018 – Aug 2018

- Managed an A/B test with a sample size of 700,000+ visitors on the main page of the company's e-commerce website to increase exposure new unlimited LTE plan; increased traffic by 20% and presented results to marketing strategy team
- Conducted an in-house survey of the company's video-streaming platform, and to identify 5 different key problems and solutions; presented to the executive board

## LEADERSHIP AND PROJECTS

SCOTTY LABS Pittsburgh, PA

Tartanhacks Tech Committee

Sept 2021 - present

- Contributed to CMU's largest hackathon's dashboard app using Dart and Flutter
- Integrated legacy backend APIs (Swagger) for participants and admins to view and create scheduled events

# **Data Visualization Framework**

Pittsburgh, PA

Nov 2021

- Collaborated with two other teammates to create data visualization framework that accepts a data and visualization plugin
- Incorporated Clarifai's machine learning API (clustering) to analyze input image and returned color density profile of the
- Used Typescript, Express.js, concurrency (promises) to accept images locally and from external APIs. Used Bootstrap4, handlebars and d3 library to display graphs of the color densities

# Republic of Korea Army Sergeant/Squad Leader

Goseong, South Korea

Deployed to Goseong DMZ as part of the 148th Intelligence Battalion

Aug 2019 - Mar 2021

- Directed a squad of 8+ soldiers to conduct border surveillance and maintain a database of 6000+ datapoints yearly; participated in weekly joint border control operations with UN Peacekeepers
- Acquired Craftsman Information Processing certificate (Jul 2020) and self-taught Javascript and Golang during service

**PlasmaPy** Pittsburgh, PA

Open-Source Contributor

Nov 2019

- Fixed the issue of PlasmaPy emitting unnecessary warnings by changing test suite (pytest) and manipulating logical operators in customer warnings suite and astroPy.
- Collaborated with three teammates to suppress a total of 74 warnings; pull request was accepted to main branch
- Managed CD/CI with Github Actions, incorporating Linters check and pytest on different versions of Python and environments