Chan Lee

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EDUCATION

UNIVERSITY OF CALIFORNIA, IRVINE, CA **Expected May 2024**

M.S., Computer Science

UNIVERSITY OF COLORADO, BOULDER, CO **May 2020**

B.A., Computer Science (Graduated with Distinction)

GPA: 3.87/4.0 (Computer Science GPA 3.95/4.0)

Dean's List: FA 2018, SP 2019, FA 2019, SP 2020

PROFESSIONAL EXPERIENCE

SOFTWARE ENGINEER: LG ELECTRONICS: Pyeongtaek, Korea **April 2021 - June 2022**

- Established a **medical monitor calibration** application (**C#, .Net Framework, MariaDB**).
- Performed as the **primary** contributor in designing and implementing **database architecture using Entity Framework** to manage medical monitor calibration-related functionalities.
- Enhanced desktop UI employing **WPF** and its controls following the scenario design.
- **Refactored** a large portion (**40%**) of **legacy code** with best industry practices utilizing modern features of **.Net 6 core**.
- **Automated** language conversion in LG acquisition workstation software products for team members (**Python, Pandas**).

SOFTWARE ENGINEER: LINEWALKS: Seoul, Korea **November 2020 - March 2021**

- **Created** a **machine learning server** for 'mdwalks-EXI project' to track and notify the risk of heart disease based on patients' medical data.
- Developed **main features** that allow users to upload and update newly built ML models and acquire prediction data in batch size for newly pre-processed data (**Strategy pattern, Celery, Redis, Python, and PostgreSQL**).
- **Created test environment** using **pytest covering 80%** of the entire functionality of ML server using best practices.

SOFTWARE ENGINEER INTERN: BENEDLY: Seoul, Korea **June 2020 - September 2020**

- **Researched and Implemented optimization of the Haversine algorithm** which is used to find distance using latitude and longitude, **enabling a 50% faster search** from that of the original search.
- **Developed** back-end for the **subscription module** for 'Lundi', a take-out platform application, allowing users to purchase and order subscribed menus from restaurants in a specific time frame (**Java, spring-framework, MySQL**).

DATA ANALYST ENGINEER INTERN: OLULO CORPORATION: Seoul, Korea **May 2019 - August 2019**

[Leading company in the electric scooter sharing service known as 'Kickgoing' in South Korea]

- **Identified** a **key pattern** to **improve** electric scooter arrangement **efficiency contributed to the ML solution** increasing scooter usage (Python, Pandas, NumPy).
- **Generated a mapping tool** to analyze large data sets, identifying patterns of user behaviors (**HTML, CSS, and libraries such as leaflet JS, Marker Cluster, pandas**).

RESEARCH ASSISTANT: Dr.Peleg's Lab: University of Colorado, Boulder **January 2019 - May 2019**

- Supported the Optimal Intermittent Reorientation Project developed to create an AI model that imitates Scarabaeinae by applying deep reinforcement learning with trajectory data acquired from actual Scarabaeinae movement.
- **Contributed to tools to gather data** that extract trajectories from videos assisting research **in the deep reinforcement learning model** (**Python, OpenCV**).

SKILLS

Programming Languages: Java, Python, C++, C#, Kotlin, HTML, CSS, Javascript

Tools: Git, Spring Framework, .Net Framework, Jupyter Notebook, Django, Flask, Pandas, Qt, PostgreSQL, MySQL

PERSONAL PROJECTS

PIG and COW **June 2021 - August 2021**

- **Developed a back-end of a web application** for meat industry owners (**Kotlin, Spring-framework**).
- **Implemented** functionality involved in **main business service logic** such as registering owner and managing menu; receiving and processing orders including **DB design** accordingly.

BATTLESHIP+ GAME **April 2020 - May 2020**

[https://github.com/citz73/battleship_game]

- **Designed and developed** an application while utilizing a **factory pattern**, and multiplayer functionality. Users can play the classic battleship-like game (**C++, Qt Framework**).