

Ilmin Cho

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EDUCATION

University of Massachusetts Amherst

Amherst, MA

BS in Computer Science (GPA: 3.78 / 4.0)

2022-2023

Coursework: Artificial Intelligence, Mobile Health Sensing&Analytics, Search Engines, Software Engineering, Computer Network, Introduction to Algorithms

Awards: Masstransfer Scholarship, Dean's lists (2022 Spring – Fall)

Bunker Hill CC

Boston, MA

BS in Computer Science (GPA: 3.97 / 4.0)

2019-2021

Coursework: Advanced C++/OOP, Advanced Java Programming, Android Dev for Java Programming, SQL Programming, Data Structures

Awards: Dean's lists (2019 Fall – 2021 Spring)

EXPERIENCE

Mechanical Engineer

Gyeonggi-do, South Korea

UNIBELL

Jan 2018 - Jan 2019

- Developed and oversaw the UniGas product line, a system designed to regulate and maintain post-supply pressure within molds through precision-engineered gas pipes. This was achieved using advanced pneumatic technology coupled with real-time monitoring software to ensure consistent pressure control during the manufacturing process.
- Contributed to enhancing the low-pressure molding process by employing thermal analysis and pressure modulation techniques, which effectively minimized sink marks and structural deformities in plastic frames, optimizing product durability and mold longevity.
- Enhanced the productivity and quality of HeaCo product manufacturing by implementing a dual heating and cooling system within the mold cavities. Utilized thermodynamic simulation tools to optimize temperature control, resulting in a more efficient cycle and superior product finish.

Telecommunications Operations Specialist, Artillery, Sergeant

Gangwon-do, South Korea

Republic of Korea Army

Dec 2015 - Sep 2017

- Installed and operated a combat radio network essential for tactical and administrative communications, significantly enhancing operational efficiency and earning a commendation for exceptional service reliability in a combat zone.
- Managed a crypto device and satellite communication system, implementing stringent encryption protocols that maintained secure channels without any breaches, thus achieving a 100% success rate in communication security over a year.
- Represented my unit in the Brigade Cryptography Competition, where our team's expertise in solving advanced cryptographic challenges led us to secure 2nd place among 15 teams, demonstrating superior problem-solving skills and cryptographic proficiency.

PROJECTS

Fall Detection application - Mobile Sensing (Team Project)

Apr 2023 - May 2023

- Developed an application that detects whether a person has fallen based on features extracted from the x, y, z, and size information of the mobile phone accelerometer sensor.
- Implemented data filtering and noise processing techniques using Butterworth filtering, Maximum, Median, Dominant frequency, and Entropy features, utilized Numpy, Scipy, Matplotlib, and Pandas for enhanced data analysis, and trained a Decision Tree Classifier for predictive analytics.

Goals Application with UKG (Team Project)

Sep 2022 - Dec 2022

- Developed a user-friendly, minimalistic, and scalable application enabling employees to manage their personal and professional goals, while also allowing managers to oversee and comment on these objectives.
- Collaborated closely with the front-end team and UKG company, primarily focusing on backend software using FastAPI, Uvicorn, and data processing with Pydantic, SQLAlchemy, SQLite, tested APIs using Postman, and coordinated through Git for both frontend and backend teamwork."

Course Registration with RateMyProfessor (Personal Project)

Mar 2021 - May 2021

- Developed a QT software-based application to streamline course registration by directly integrating evaluation scores of professors from the RateMyProfessor website, specifically for Bunkerhill CC.
- Utilized local data files to enhance the accuracy and speed of fetching course and professor information for students.

REMARKET - Android Application Prototype (Personal Project)

Mar 2021 - May 2021

- Designed and developed 'RE-Market', an Android application where all users can act as both sellers and consumers, facilitating direct sales of items at reasonable prices.
- Developed Android application programming using Java and deepened my understanding of market analysis.

SKILLS & INTERESTS

Skills: Python | Java | C++ | SQL | HTML | CSS | React | Postman | Android studio | Git | Docker | Numpy | Pandas | Scipy
