Jinsaul Kim
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EDUCATION

Imperial College London **2021 - 2025**
Computing (Artificial Intelligence and Machine Learning) MEng, Predicted Upper Second Class Honours

WORK EXPERIENCE

MindLink **London, UK** **Apr 2024 – Sep 2024**
6 Month Placement, software engineer intern

- Joined a software developer team in an agile environment. Designed and produced production level full-stack software, taking responsibility and confidently proposing design decisions.
- Extended existing codebase iteratively with automated testing and continuous integration while removing dependencies on external frameworks.
- Set and worked towards ambitious personal growth goals, regularly evaluating with manager.

PROJECTS

UNIVERSITY GROUP PROJECTS

Web app designed for a real client

- Developed a user-centred web app using ReactJS that allows users to plan and join community litter picking events. Designed and developed for a stakeholder by carrying out prototyping, thin-slicing, and iterating on user feedback.

pintOS operating system features

- Implemented thread scheduling with priority donation, optimised memory utilisation through page swapping and sharing, and dynamic memory management. Took the role of project leader to make decisions and help teammates struggling with work.

WACC compiler

- Devised and created a lexer, parser, semantic analyser, and a code generator, making use of an abstract syntax tree to represent the structure of the input program. Proposed potential solutions to the team and led discussions about the strengths of each idea.

Arm11 assembler and emulator

- Wrote a fetch-decode-execute cycle, recreated ARM instructions using C, and recreated the Arm11 processor state. Gained experience in collaboratively debugging code and distributing the workload among teammates to finish the project within time restrictions.

PERSONAL PROJECTS

- Programmed a workout scheduler with a GUI using the Win32 API(C++)
- Created a 2D game (Brick Breaker) using the Unity (C# Scripting) Engine
- Practices algorithms and data structures in C++ on online coding platforms.
- Built a Lego differential-drive robot with sonar sensors to use a probabilistic state model(MCL). Trained it with model-based RL giving it manual sparse rewards to move around obstacles.
- Created and trained neural network classes for data analysis, image generation, etc.
- Designed, conducted, and documented a project to use VLMs as a source of rewards in RL.

SKILLS AND ACHIEVEMENTS

PROGRAMMING LANGUAGES AND FRAMEWORKS

- C, C++, C#, Java, Python, Scala, Haskell, SQL, Win32, Unity Engine, React, JS, TS, PyTorch

ACHIEVEMENTS IN MATHEMATICS

- UKMT Intermediate Maths Challenge 1x Full Marks, 5x Gold Award
- 2nd place in Gloucestershire Team Maths Competition

LANGUAGES

- Fluent in English and Korean, Intermediate in Japanese, Beginner in Mandarin and Spanish

EXTRACURRICULAR

- Participates in the department's schema to mentor 1st year students
- Duke of Edinburgh Bronze Award