

Adam Lau

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EDUCATION

MEng. Joint Mathematics and Computer Science

London, UK | Jul 2022

IMPERIAL COLLEGE LONDON

Relevant Modules: Methods for Data Science; Decentralized Finance; Reinforcement Learning; Computational Finance; Software Engineering for Industry; Computational Linear Algebra; Operations Research, Logic-Based Learning.

A-Levels

KL, Malaysia | Jul 2018

GARDEN INTERNATIONAL SCHOOL

SKILLS

Languages: Java, C, Python, PHP, Prolog, Haskell, Go, (Rust)

Databases: SQL

Web Development: JavaScript, TypeScript, React, HTML/CSS

Technology: Git, AWS, Docker, GraphQL, NodeJS, \LaTeX

PROJECTS

CREATING A POKEMON BATTLE AI | MASTERS PROJECT

TypeScript, React, NodeJS | Jun 2022

- Innovated a method of capturing stochastic elements inside the game state representation.
- Compiled replays of played matches by implementing Web Scraping technology.
- Created a parser that ingests and transforms replays into readable CSV file lines.
- Trained neural networks to predict a player's win rate and next action using TensorFlow.
- Crafted and evaluated an algorithm that uses model outcomes to choose the theoretical best play.
- Produced a bot that communicates with a third-party server in order to play Pokémon games.
- Received individual mark of 78%.

AUTO MANAGER FOR ML EXPERIMENTS | GROUP PROJECT

AWS, JavaScript, React, NodeJS | Dec 2020

- Created website for PhD students to run machine learning experiments and store the results immediately online.
- Set up backend API allowing connection to GitHub/Gitlab through OAuth commands.
- Hosted staging and production website using Heroku, set up through command line interface.
- Stored machine learning results in online AWS database.
- Received first class mark.

PINTOS | GROUP PROJECT

C | Nov 2019

- Added multiple new features to a miniature Operating System.
- Set up scheduling system using multiple methods while implementing concurrency and thread-safety.
- Built program execution system which allows user to run many different types of programs.
- Produced an operational file system which deals with allocation and removal of memory.
- Received first class mark.

WORK EXPERIENCE

SBG SPORTS SOFTWARE | FULLSTACK ENGINEER INTERN

London, UK | May 2021 – Sep 2021

- Created dashboard for support team, decreasing time taken to verify submitted video clips.
- Developed and expanded APIs using both REST and GraphQL practices.
- Maintained and updated Postgres database through MySQL.

SHINJIRU TECHNOLOGY | SOFTWARE ENGINEERING INTERN

KL, Malaysia | Jul 2019 - Sep 2019

- Streamlined existing communication processes between consumers and the company.
- Created dashboard to assist support team with managing availability based on item stock.
- Reported to supervisors biweekly and periodically helped co-workers by taking on their work.