CHARLES LEWIS

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EXPERIENCE

GUY CARPENTER SUMMER INTERNSHIP , 07/2023 - 08/2023
Marsh McLennan, London, United Kingdom

- I worked as part of the Global Marine Team at Guy Carpenter, a reinsurance broker that is a subsidiary of the multinational financial services firm Marsh McLennan. During this time, I was involved in a project to process data about the risks facing global clients by creating pivot tables, automating the process using Python and Python's dataframe and pandas libraries. Previously, there was manual input of data using Microsoft Excel. The software I developed enabled direct transfer of the data from the Excel spreadsheet into the pivot tables, allowing different areas of the business to receive their data more quickly.
- I facilitated the ability of the EMEA (Europe, Middle East and Africa) team to understand and programme Alteryx workflows relating to Flood Re, a flood re-insurance scheme in Britain, by documenting these workflows into a step by step easy to understand guide.
- A reference may be requested by contacting my former line manager here - francesca.terenzi@guycarp.com

SKILLS

- Google workspace - intermediate
- Java - intermediate
- Python - intermediate
- SQL - intermediate
- C++ - intermediate
- Microsoft Office Suite - intermediate
- JavaScript - intermediate
- HTML - intermediate
- Firebase - intermediate
- React - intermediate
- CSS - intermediate
- TypeScript - intermediate

EDUCATION

City, University of London, London, United Kingdom, 01/2021 - Current
Bachelor of Science: Computer Science
3 stage undergraduate programme in Computer Science - the courses are as follows:
Stage 1:

- Databases - 76.2%
- Programming in Java - 63%
- Mathematics for Computing - 87.6%
- Systems Architecture - 84%
- Operating Systems - 80.6%
- Computer Science, Ethics and Society - 90%
- Introduction to Algorithms - 74.4%

Stage 2:

- Data Structures and Algorithms - 57.7%
- Language Processors - 70.4%

- Computer Networks - 52.2%
- Object-Oriented Analysis and Design - 62.9%
- Professional Development in IT - 71.9%
- Programming in C++ - 89.1%

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International Community School, *London, United Kingdom, 01/2019 - 01/2021*
International Baccalaureate Diploma Programme
Total points awarded: 39/45

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Centre for Young Musicians, *London, United Kingdom, 01/2011 - 01/2021*
Cello
- Had individual tutoring and played in orchestras

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Associated Board of the Royal Schools of Music, *01/2020*
Grade 8 Cello - Merit

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Associated Board of the Royal Schools of Music, *01/2020*
Grade 8 Piano - Pass

PROJECTS

- Coursework - Creating a game using Java: I created a multi - level game in Java using a physics engine library provided by my university. I used the IntelliJ IDE and debugger to solve problems in my game, which enhanced my problem solving skills. I utilised GUI technology to change levels and class inheritance to create unique levels with common features. Creating this game successfully enhanced my knowledge of important application of Object Oriented Design.
- Coursework in Databases: I created a database for an e-commerce site marketing products relating to Korean pop music using SQL, which introduced the real - life application of databases. One of the requirements of this project was to normalise the data, so I learned how to use multiple tables, each storing different aspects of the data. Then, I provided foreign key relationships between related tables. Laying out the data in this way afforded me the opportunity to write non - trivial SQL queries to extract data in order to answer questions that were not anticipated at the time of data entry.
- Data Analysis Own Project: One of my interests is Korean pop music. I used my knowledge of Python and Java to create a data analysis project analysing the correlation between the percentage of Latin Script lyrics in Korean pop music videos and the viewing figures of the videos. The aim was to determine the extent to which viewing figures are influenced by incorporating Latin Script lyrics. Firstly, I read raw data from an SQLite database file. I used Java for the data analysis and Python's Matplotlib module to generate a scatter plot. This project provided me with the opportunity to learn how to plot data using Python and solidified my knowledge of data processing in Java. This complemented my learning from the Java game which focused more on process control and Object Oriented Design. The two projects provided good exposure to the power and breadth of the Java programming language which will equip me to tackle diverse types of problems using either programming language in the future.
- Programming in C++ coursework: I developed two C++ classes that form part of a simple game, with robots moving around in a two dimensional space. The "robot" class represents a robot moving around in the 2D space and the "game" class holds

the robots that make up the game. The "robot" class contains methods to move a specific robot in question around the 2D space while the "game" class contains methods to obtain statistical information about the robots in the game, such as the number of robots and the furthest distance any robot has travelled. The "game" class also allows users to create robots in addition to selecting a specific named robot already in the game and moving it.

- React/Firebase reddit style social media site: I created a social media site, in the style of Reddit, incorporating create, react, update and delete (CRUD) operations, in addition to features such as usernames and users, following functionality and upvoting/downvoting posts
- Command line application - I developed an application using react which displays information about myself and general information such as the time in a terminal based on what command is typed into the terminal.