Salman Ashraf

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EDUCATION

BSc. Computer Science With Industrial Experience   Manchester | Expected June 2025
UNIVERSITY OF MANCHESTER
Main modules: Python, Java, Data Science, Software Engineering, Algorithms and Data Structure, Machine Learning.
Awards: Jeremy Woolridge Scholarship awarded to top 20 based on academic merit and widening participation criteria.

PROFESSIONAL WORK EXPERIENCE

BRIGHT NETWORK INTERNSHIP | INFORMATION TECHNOLOGY INTERN   Remote | June 2022

- Implemented Amazon's path-finding algorithm for the self-driving delivery vehicles using **Pseudocode** and **Python**.
- Operated via graph abstraction using the A* search method to find the shortest path between nodes on a 2-D grid.
- Calculated the 0(n) values along 10+ individuals to analyse and improve the informal complexity of the programs.

TESCO EXTRA | CUSTOMER SERVICE ASSISTANT   Gorton, Manchester | Jan 2021 - Present

- Recorded over 1000 hours of customer assistance and received an average 85% customer satisfaction rating.
- Generated an 8% increase in weekly routines through collaboration with teams to perform tasks and achieve goals.
- Got rewarded with a thank you bonus worth 1.25% of annual wage of year 2021 for providing excellent service.

TECHNICAL EXPERIENCE & PROJECTS

DATA VISUALISER ↗   PYTHON, MATPLOTLIB, PLOTLY, GIT, DATA ANALYSIS | AUGUST 2022

- Generated and analysed 7 data sets using different types of plots creating a series of functional visualisations.
- Accessed data sets from online sources and created graphs of weather data and a map global earthquake activity.

ALIEN INVASION ↗   PYTHON, PYGAME, GIT, LINUX | JULY 2022

- Developed a 2-dimensional game in which the aim is to shoot down a fleet of aliens as they drop down the screen.
- Refactored 100+ of lines of code to simplify the structure of the program and made it easier to build on.

FOUNDATION YEAR TEAM PROJECT ↗   LATEX, HTML, CSS, GIT, LINUX | MAY 2022

- Designed a website that provides new students all the necessary guidance to settle and succeed in Manchester city.
- Collaborated with 5 other members to conclude the task with a general report achieving an overall 82% unit grade.

INFORMAL COMPLEXITY OF A PROGRAM ↗   PSEUDOCODE, ALGORITHM ANALYSIS | MAY 2022

- Analysed and translated 3 algorithms for different inputs and determined the outputs through graph abstraction.
- Strengthened the algorithm to minimize the running time, and steps taken by the program to generate an outcome.

MY PERSONAL WEBSITE/PORTFOLIO ↗   Bootstrap, HTML, CSS | APRIL 2022

- Programmed a website that provides professional information, work experiences, academics and lifestyle of myself.
- Got reached by 30+ individuals who rated and advised improvements for the projects and information listed.

KIDNEY DONATION ALGORITHM ↗   PSEUDOCODE, ALGORITHM COMPLEXITY, PYTHON | MARCH 2022

- Researched information about kidney transplantation and different types of matches from the NHS website.
- Assembled an algorithm that finds compatible pairs for paired kidney donations for up to a 3-way match.

SOLVING ANY LABYRINTHS ALGORITHM ↗   PSEUDOCODE, ALGORITHM ANALYSIS/COMPLEXITY | FEB 2022

- Computed an algorithms that solves any 2-Dimensional and 3-Dimensional maze or labyrinth.
- Formulated and optimized the final work referring to the mazes of up to 200 cells generated by this website.

LEADERSHIP EXPERIENCE

MANCHESTER COLLEGE | PEER MENTORING FOR MATHEMATICS AND PHYSICS   Manchester | Feb 2021

- Provided support, clarification, and feedback to over 20 students to accomplish desired outcomes.
- Addressed the common mistakes across 14 module sections through guidance and motivation.
- Achieved improvements of nearly 20% on the final exams compare to the practice tests results.

SKILLS & ACTIVITIES

Technical: Python, Bash, HTML/CSS, Git, Data Analytics, LATEX, Terminal, Linux
Languages: Fluent in English, Italian, Urdu, Hindi, and Punjabi.
Interests: Mentoring, Volunteering, Cosmology/Astronomy, Team Sports, Snooker, Painting, Travelling.