

BILAL MUSTAFA SHEIKH

CARDIFF

+447498835682 – bilalmustafa041@icloud.com

<http://www.bilal-mustafa.co.uk>

A second-year Cardiff University Student enrolled in Computer Science (predicted 1st class) who has knowledge in different programming languages: Python, Java, and Swift. Seeking an Industrial placement to gain work experience. Aiming to be a Software Engineer to develop innovative products that will help people in day-to-day activities.

EDUCATION

BSC Computer Science with Security and Forensics, *Cardiff University*

Sept 2019 – July 2023

- **Architecture and Operating Systems**, 75%: Gained knowledge on Computer Level Hierarchy which included: Digital Logic, Control, Machine, System Software, Assembly Language, High-level Language and User.
- **Database Systems**, 75%: learning how a database is designed using UML diagram and the types of normalisations. Improved SQL in Oracle SQL Plus by learning basic commands and making reports.
- **Problem Solving with Python**, 78%: Improved Python skills by learning new topics and completing coursework, which involved comparing different scoring methods for squash sport by simulation. Also learnt about mathematics topics that included logic and probability.
- **Data Processing and Visualisation**, 83%: Learnt statistical methods to analyse data using Python and analysed data by comparing means between two variables and giving a recommendation established on the results. Also learnt about the correlation between variables.

Manarat Al Riyadh International School

Sept 2015 – June 2019

- **A-Levels**: Mathematics, Computer Science, Business Studies
- **SAT**: Evidence-Based Reading and Writing, Maths
- **GCSEs**: 6 x A-C, including Maths, English, and Computer Science

SKILLS

Programming Skills: Experience in Python, Java, Swift, SQL, MATLAB, HTML, CSS. Multiple coursework involved using Python, such as programming an adventure game. Also programmed a Magic Square program in Java as part of a coursework.

Time Management: Managed timetable by using applications like calendar and reminders. Developed an Excel for year 2 modules, which contained the details about each module and the coursework's to be finished. Took an extra module in 1st semester therefore had to manage time efficiently.

Teamwork: The objective of one of the modules (Group Project) in year 2 is to work with group members to complete the project given by the client. As part of the group project, created the database structure of the website. Played teamwork-based sports like cricket and football.

Communication: Part of doing group projects is to have good communication between team members. Improved communication skills through the delivery of the presentation. Had regular face-to-face meetings before the pandemic, then switched to Microsoft Teams for meetings for group projects.

Problem Solving: In Problem Solving with Python Coursework, the task was to recommend which scoring method in squash is better. Simulated both scoring methods in Python. Analysed and made a report on which method is better.

PROJECT WORK

Buffon's Needle Simulation

- Developed a GUI using MATLAB App Designer, which allowed the user to run Buffon's needle simulation to estimate Pi's value.
- The GUI allowed many user options in which the user can run the simulation. E.g., the user had an option of running the simulation using needles or squares.
- Improved programming skills by developing a GUI using the App Designer.

Simple Document Searching

- Created the searching algorithm in Python, that helps the user search for a particular keyword from the document.
- Researched on how to create an Inverted Index, which improved problem solving skill. Gained knowledge about an Inverted Index in Python, which increased knowledge in Python.

Shopping Website

- As a group project, developed an online shopping website that sold the latest technology products, which required teamwork.
- Programmed and designed the Shopping Basket page using HTML and CSS, where the users could find all the items added to the basket, the subtotal and can update the cart.
- All the items in the cart were stored in SQL Database. Integrated the Database with flask to ensure that the correct items were displayed on the basket page.
- Organised the tasks by using Trello, where every member could see the completed tasks and what to do next, that helped improve planning which helped complete the project quicker.
- Utilized: Python, Flask, HTML/CSS, Gitlab, MySQL.

VOLUNTARY EXPERIENCE

Student Mentor

Sept 2020 – Feb 2021

- Mentored 9 first-year students from the Computer Science course to provide information about study-related matters and social life in Cardiff.
- Built strong relationships with the mentees by arranging meetings and ensuring that the mentees face no difficulty settling in. Had to plan the meeting when every mentee was available, which required planning and time management.

Clean Up Cardiff

Feb 2020

- Volunteered to clean up Bute Park in Cardiff with 9 other volunteers, which built new relationships with the other volunteers.
- Created groups of 2 volunteers and the team leader allocated an area for cleaning, which increased efficiency as the task completed quickly.

INTERESTS

Sports: Part of the Cricket development squad in Cardiff University Team. Participated in Inter-School tournament in Riyadh Cricket League and finished the tournament as the top scorer. Played as a defender with Pakistan Society Football Team in the University league.

Technology: Keep up to date with the latest news and trends in the technology Industry. Interested in companies like Apple, Google, Huawei, and the novel products introduced to the tech industry. Also started making beginner level games like tic-tac-toe, hangman as a hobby.

References available on request