Vali Hameed

Valihameed88@gmail.com | 07305319083 | yourwebsite.com | linkedin.com/in/vali-hameed

github.com/Vali-Hameed

Education

Lancaster University Sept 2024 – Present

- Computer Science BSc with Honours (Year 2) - Expected First Class
- First Year Average - 70%

Experience

Temporary Software Developer, DigbySwift – Leeds, ENG June 2023

- Gained proficiency in **Dart** and **Flutter** by independently developing a **cross-platform mobile app** that allows users to search for movies/TV series and view details such as posters and release dates.
- Learned and implemented **unit testing** principles to verify code functionality and ensure software quality.
- Utilized **Git** and **GitHub** for version control, gaining hands-on experience with collaborative development workflows including branching and merging.
- Gained hands-on exposure to **Microsoft Azure** for hosting client websites and supporting business operations.

Projects

Tram Network Pathfinding Visualizer

- **Engineered a desktop application in Java** to calculate and visualize the shortest route between two stations on a tram network.
- **Applied Object-Oriented Programming (OOP) principles** to design a robust graph data structure, modeling stations, connections, and paths as distinct Java objects.
- **Implemented classic search algorithms such as Dijkstra's and A*** to efficiently determine the most optimal path based on connection weights.
- **Managed data persistence and input** by parsing network information from a data file (e.g., CSV or JSON) to dynamically construct the graph at runtime

2D Racing Game

- Directed a full-cycle project by **translating stakeholder requirements** into a functional design, implementing features through an **iterative SDLC**, and **incorporating user feedback** to ensure all success criteria were met
- **Developed a complete leaderboard feature**, which involved creating the UI to display ranked scores and implementing the file I/O logic to manage persistent high-score data.
- **Developed a 2D top-down racing game in Python using the Pygame library**, implementing core mechanics such as vehicle physics, pixel-perfect collision detection, and lap/time tracking.
- **Applied Object-Oriented principles to model game entities**, creating distinct classes for the player vehicle and track environment to encapsulate their unique properties and behaviors.

Portfolio Website

- **Developed a performant and SEO-friendly personal portfolio** by leveraging the **Static Site Generation (SSG)** capabilities of the **Next.js** framework.
- **Implemented a fully responsive and modern UI** using the utility-first approach of **Tailwind CSS**, ensuring a seamless user experience across all devices (desktop, tablet, and mobile).

Technical Skills

Languages: Java, Python, Dart, JavaScript, SQL

Frameworks/Libraries: Flutter, Next.js, Tailwind CSS, Pygame, Java Swing

Tools & platforms: Git/GitHub, Unit Testing, Docker