MR VARUN NARENDRA



Grades

A LEVEL COMPUTER SCIENCE- B

A LEVEL ECONOMICS-B

A LEVEL MATHEMATICS- D

(Brackets refer to old grade equivalent)

GCSE MATHS - 7 (A)

GCSE FURTHER MATHS (B)

GCSE PHYSICS - 6 (B)

GCSE CHEMISTRY- 7 (A)

GCSE BIOLOGY- 6 (B)

GCSE ENGLISH LIT-7 (A)

GCSE ENGLISH LANG- 6 (B)

GCSE MUSIC-8 (A*)

GCSE LATIN- 6 (B)

GCSE DT RESISTANT MATERIALS
- A

Other Achievements

ABRSM Piano GRADE 5

ABRSM Piano GRADE 3

ABRSM Piano GRADE 1

ABRSM CELLO GRADE 5

ABRSM CELLO GRADE 3

PROFILE

A keen 2nd year Computer Science BSC student at Royal Holloway University of London. I have a passion for using both creative and problem solving skills to explore intriguing and thought-provoking projects.

WORK EXPERIENCE

I have worked as a FREELANCE Tutor for both **Computer Science and Mathematics**. I have taught up to and including A Level. These have been for the companies MyTutor and GoStudent. Teaching Computer Science in particular has helped me consolidate my knowledge of important principles such as Searching and Sorting Algorithms and Data Structures. Teaching a variety of students from different backgrounds with varying academic ability has encouraged me to approach these fundamental concepts from different angles. It has also taken me to help students with areas that were new to me. For example, I have helped a student program a platform game in c# with the game engine Unix. Teaching maths further improves my skills in problem solving.

PROGRAMMING PROJECT EXPERIENCE

I have had the pleasure of completing both personal and professional projects throughout my A Level and Degree courses across different languages. These have given me insight into my own strengths as well as giving me skills in both front-end and back-end development.

Restaurant Ordering Interface TEAM PROJECT- Java Maven, JSON, HTML, CSS and Java Script, SQL with refactoring CURRENT

The aim of this project was to create an interface that a restaurant can use to order, and keep track of food. This project has taught me the importance of using Git to work collaboratively in a team by committing and merging code with others. Having the opportunity to code in HTML and CSS to design a website that can communicate with the backend was a particular highlight in this project for me.

Airport Delayed Flight Manager- Delivering SQL Queries to PostgresSQL via Java programming languages

This project taught me the importance of taking data from files and transferring them to a SQL Database to perform complex queries involving JOINS and GROUPS between multiple tables.

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Simulation of the Organisation of Virtual Memory inside a running process- C programming language

This project taught me how the language C differs from higher-level languages such as Java/C# in that it gives you more access to the hardware components of a computer. For example using the method malloc() to allocate the requested memory and return a pointer to it.

Calculator Project- Java Maven, JavaFX, TDD Development with JUnit Testing, UML Diagram creation with Design Patterns, JavaDoc

This project was my first introduction to pulling, committing and pushing via git using GitLab. It also taught me the importance of Test Driven Development to promote continuous change in code, documentation and the ability to fail fast to make sure a clear direction in production is followed. JavaFX was also a skill that I learned, allowing configuration of the front-end based on the back-end. As apart of this project I had to create a design via a UML Diagram that explained the creational, structural and behavioural design patterns I was planning on using. Lastly it taught me the importance of consistent commenting via javadoc to show other developers how my other programs function.

Robotics Team Project- Java, LEJOS API, with team building

This project was fundamental in teaching me how to read documentation written by another programmer to use their libraries and APIs with my code. It also gave me insight into the world of software engineering in companionship with robotic engineering.

Network Trading Card Game- Java, OOP in development with sending and receiving from a Server.

The purpose of the project was to learn how java can interact with a server to send and receive data. It taught me the importance HTTP methods such as GET, POST, PUT, PATCH, and DELETE when communicating with a server.

Picnic Planning Software- Java, OOP in development with File Reading

This project showed me the importance of proper file reading to gain information to put in relevant objects of classes.

Song Suggesting Software- Java, OOP, Binary Tree traversal

This project allowed me practice the principle of the data structure binary tree and ways to traverse via pre-order, in-order and post order traversal.

Spice Mixologist Software- Java, non-API Linked List Building with Traversal

Learning the value of a linked list implementation was the high light of this project. Appreciating the use of pointers here was fruitful in my development as a Software Engineer. Appreciating concepts such as polymorphism and inheritance in object orientated programming has also been beneficial to my development as a programmer.

Active Recall and Spaced Repetition Revision Software- C# Backend with XAML FrontEnd, linked with storing data via SQL QUERIES

I completed project as apart of my A Level NEA. This was my first insight into the world of combining frontend, and backend to create a cohesive software experience. It also taught me how to design databases with normalisation in mind.

HOBBIES

I play the Piano, Cello, Ukulele and Guitar in my free time. I like to read non-fiction books. I also participate in jiu jitsu and Muay Thai at university.