# Tausif Samad

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GitHub: https://github.com/Bitmapp3r

Stack Overflow: https://stackoverflow.com/users/10542502/bitmapper

GitLab: https://gitlab.com/Bitmapp3r

#### Education

• University: Imperial College London - Computing (MEng)

(2023 - 2027)

- Currently in 3<sup>rd</sup> year
- $\circ\quad$  Grade 2:1 achieved in 1st year and 2nd year
- Modules I have taken in 2<sup>nd</sup> year:
  - Software Engineering Design
  - Operating Systems
  - Laboratory 2
  - Algorithm Design and Analysis
  - Models of Computation
  - Advanced Laboratory 2
  - Networks and Communications
  - Compilers
  - Introduction to Prolog
  - Probability and Statistics
  - Computational Techniques
- Secondary School: St. Olave's Grammar School

(2015 - 2022)

- o A-Levels: Mathematics (A\*), Further Mathematics (A\*), Physics (A\*), Computer Science (A\*)
- o GCSEs:
- Grade 9: Mathematics, Computer Science, Physics, Chemistry, Biology, DT
- Grade 8: Geography
- Grade 7: French, English Language, English Literature

### **Projects**

- · Aarch64 assembler and emulator
  - $\circ\quad$  As a team, worked to develop an ARMv8 assembler and emulator
  - Wrote an A64 assembly program to run on a Raspberry Pi 3 which utilised the assembler, emulator and the board's GPIO pins to flash an LED
  - Also created a morse code device using a rumble motor and button connected to the Raspberry Pi's GPIO pins to send and receive messages from another device
  - $\circ$  Languages and tools used: C
- PintOS
  - As a team, we implemented core operating system functionality and features to a small, basic operating system called 'PintOS', designed to teach operating systems concepts
  - o Involved working with and implementing threads, CPU scheduling, file systems and memory management
  - Languages and tools used: C
- 'Readventure' a reading webapp
  - o As a team, created a webapp to improve children's interest in reading
  - The webapp hosts stories that children can read with a unique feature of being able to choose different directions for where the story can go, making children engaged and have a sense of control
  - o Included a rewards, level and badges system to further provide a gamified experience
  - $\circ \quad \text{Languages and tools used: HTML, JavaScript, CSS, TailwindCSS, React, NextJS, Firebase Firestore, Firebase Authentication} \\$
- Al game match damage-based win predicter
  - A quick 'support-vector-machine-based' machine learning model I trained that is designed to predict the outcome of a game of 'League of Legends' based on total damage dealt by both teams
  - o Trained on a dataset of my personal ranked games
  - o Uses the SVM machine learning algorithm from the Python 'sklearn' module
  - o Languages and tools used: Python, sklearn Python module, Riot API
  - Project served as an experience in creating ML models from established Python libraries and drawing data to train them through external APIs

## Volunteering

Volunteered at 'Life Changing Tuition' to help primary school students prepare for 11+ exams

#### References

• (References available on request)