G Suraj

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Work experience and Projects

Co-operate

http://www.cooperate.sg/

Web Designer

Cooperate aims to connect capable tutors to underprivileged, underperforming youth.

- Started with Schoolmates and worked with National Youth Council of Singapore to secure a \$1500 grant
- Initially possessed little to no knowledge of HTML and CSS

Extended Essay Research Project

Is Hash Search always more effective than conventional search algorithms?

- With an extremely brief introduction to Java, Data Structures and Few algorithms, a detailed report was to be written.
- Two part report that analysed the efficiency of hash searching with regular searching algorithms (linear, binary, quick, etc.) and m-level hash table hash searches.

Android School Portal

Android Mobile Application Design

School Portal to improve connectivity and flow of data for Anglo-Chinese School (Independent)

- A skeletal mobile app that pulled data from all of the various school sites and presented it in a singular location. Built to improve how news travelled within the school as it had largely relied on word of mouth.
- Utilised principles of the Software development life cycle process to develop the application

Neural Network Project

https://git.io/vKTLq

Handwriting Recognition Software

A research project to understand machine learning which culminated in a web-app

- Main objective was to design a website to explain to beginners what Neural Networks are.
- Specifically we focused on Restricted Boltzmann Machines
- Ended project with a handwriting recognition app to guess numbers from 0 9 using the MNIST Dataset

Bare-metal Raspberry Pi Group Project https://git.io/vKTLE Pac-Man from scratch in C

- Pac-Man written from scratch in bare-metal C on a raspberry pi without the source code.
 A custom lego controller was also built for this project.
- https://github.com/group34-2016/Baremetal-Pac-Man

A research project to understand machine learning which culminated in a web-app

Tutoring Services

Mathematics and Physics Tutoring

A part time job after completing the International Baccalaureate.

- Tutored 6 different students in either Mathematics or physics.
- Generally, improvement was noticed with 2 students increasing from a B (60%-70%) too an A-Star (90%-100%). The rest achieved no less than an A (80%-90%).

Education

Imperial College London

Computing

• MEng in computing (G401). Started in 2015 and graduating in 2019. Obtained an A grade for the first year (>70%).

Anglo-Chinese School (Independent)

- International Baccalaureate Diploma obtained for Computer Science, Mathematics and Physics at higher level (HL) and Business & Management, Language & Literature and Hindi B at standard level (SL). Obtained a score of 42/45
- Member of Photographic society and organized the inter-school photo competition Singapore Youth Photography Competition with a committee.
- Member of Drama Club (Independent Stage) and obtained First place in the inter-school competition Singapore Youth Festival
- Participated in International Model United Nations Conference (IMUNC) 2013 and Singapore International Model United Nations (SIMUN) 2013