SIDDHARTH SRIVASTAVA

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EDUCATION

University of Warwick　　　　　　　　　　　　　　　　　　September 2020 - July 2024
MEng Computer Science　　　　　　　　　　　　　　　　　　　*Coventry, United Kingdom*

· Modules: Functional Programming, Algorithms, Advanced Computer Architecture, Computational Physics, Electrical and Electronic Circuits
· First Class Honours (20/21 & 21/22)

Overseas Family School　　　　　　　　　　　　　　　　　　　August 2018 - May 2020
International Baccalaureate Diploma　　　　　　　　　　　　　　　　　　　*Singapore*

· 43/45 IB Diploma points (Higher Level Mathematics, Physics, Economics)

EXPERIENCE

American Express　　　　　　　　　　　　　　　　　　　June 2022 - August 2022
Technology Engineer - Global Commercial Services　　　　　　　　　　　　　　*London*

· Collaborated in a group of 6 interns and 3 full time engineers on a software project, following the **Scrum** methodology;
· Designed and engineered a micro-services based web application to facilitate data migration between the old FXIP platform to the new Global Pay platform; built using **Kotlin**, **Spring Boot**, **React**, **PostgreSQL** and **Apache Kafka**;
· Implemented containerization using **Docker** to isolate the services and databases into their own containers, facilitating a streamlined deployment to production.

Warwick Moto　　　　　　　　　　　　　　　　　　　　　November 2020 - Present
Mathematical Modelling & Control Systems Engineer　　　　　　　　　　*University of Warwick*

Warwick Moto is a student-led engineering team to build fully-electric race-spec superbike.

· Designed algorithms in **Python** to compute an elevation cycle for the Isle of Man circuit using geographical data and a drive cycle;
· Engineered a 3 degree of freedom vehicle model in **Simulink** using the vehicle dynamics blockset to simulate longitudinal and lateral movement of the bike;
· Developed an algorithm to convert waypoint data of any racetrack into a steering cycle to simulate the running of a bike on a track;
· Programmed a new Electronic Control Unit with two CAN channels based on the Embed E400 Automative Controller using **Simulink** and **CANalyzer**;
· Implemented contactor sequencing to ensure safe startup, state transitions and shut down for the motor and inverter on the bike.

Primrose Hill Surgery　　　　　　　　　　　　　　　　　　June 2021 - August 2021
Administrator & IT Support　　　　　　　　　　　　　　　　　　　　　*London*

· Utilized **Pandas** and **NumPy** to perform data analysis on vaccination data at the local vaccination site to enable equitable allocation of funds;
· Performed searches on **EMIS** to sort patients based on criterion to provide specialised care;
· Operated the NHS e-referral service to refer patients to hospitals for advanced care;
· Volunteered at the local vaccination site as a vaccinator to administer over **1000** COVID-19 jabs;
· Coordinated the IT response to manage the **Palantir Foundry** vaccine ordering platform and Outcomes for Health Point of Care system to ensure smooth operations.

Warwick Engineering Society　　　　　　　　　　　　　　November 2021 - June 2022
Technology Ambassador　　　　　　　　　　　　　　　　　　*University of Warwick*

· Upgraded the EngSoc PDR progressive web application using **axios** to fetch event data from an API and display it on the home screen, enhancing user experience.

PROJECTS

Miyagi　　　　　　　　　　　　　　　　　　　　　　　React, Express, MongoDB
CS261 Software Engineering

A full-stack mentoring system developed in a group of 7 students in collaboration with Deutsche Bank

· Developed the mentor-mentee matchmaking system using the **cosine similarity** metric based on expertise of mentors and needs of mentees;
· Engineered algorithms to scrape spoofed data from websites using **Beautiful Soup** to insert into our database to act as fake data.

Stëmm　　　　　　　　　　　　　　　　　　　　　　　JavaScript, Deepgram API
Hack Cambridge 2022

· A Chrome Extension that uses the Deepgram and Chrome APIs to control the Chrome browser using voice control commands;
· The project was featured on Deepgram's blog.

Soulfood　　　　　　　　　　　　　　　React Native, Firebase Auth, Cloud Firestore, Axios
Warwick Hack 2021

· An cross-platform mobile application that pulls recipes from an API and allows users to 'like' recipes to save to their profile.

SKILLS

Languages: Python, Java, HTML, CSS, JavaScript, PHP, SQL, MATLAB, Simulink, Kotlin
Frameworks/Tools: matplotlib, numpy, scipy, pandas, Flask, React, React Native, Beautiful Soup, Tensorflow, Keras