

# SIDDHARTH SRIVASTAVA

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## EDUCATION

### University of Warwick

*MEng Computer Science*

September 2020 - Present

*Coventry, United Kingdom*

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

### Overseas Family School

*International Baccalaureate Diploma*

August 2018 - May 2020

*Singapore*

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

## EXPERIENCE

### American Express

*Technology Engineer - Global Commercial Services*

June 2022 - August 2022

*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, engineered using **Kotlin**, **Spring Boot**, **React** and **PostgreSQL**
- Implemented containerization using **Docker** to isolate the services and databases into their own containers, facilitating a streamlined deployment to production

### Warwick Moto

*Mathematical Modelling & Control Systems*

November 2020 - Present

*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 Automotive 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

*Administrator & IT Support*

June 2021 - August 2021

*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

*Technology Ambassador*

November 2021 - June 2022

*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

*CS261 Software Engineering*

React, Express, MongoDB

A mentoring system developed in a group of 7 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

*Hack Cambridge 2022*

JavaScript, Deepgram API

- 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

*Warwick Hack 2021*

React Native, Firebase Auth, Cloud Firestore, Axios

- 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