

# ESHAN WICKRAMARACHCHI

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United Kingdom - London

## EDUCATION

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- **City, University of London**, London, UK Sep 2018 – August 2022
- **Mechanical Engineering and Aeronautics Masters (MEng)**
- Upper Second-Class Honors – **3.7 GPA**

## SKILLS AND ABILITIES

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- **Programming Languages– Python, Java, MATLAB ( MATLAB-SIMULINK) (Linux experience)**
- **Software** - 3D Printing, SolidWorks, MATLAB, AutoCAD, ABAQUS, XFLR, ANSYS Fluent, MS-Office, StaadPro
- **Robotics** – Image Processing, Machine Learning, GPS and Satellite location, Guidance systems
- **Aeronautical and Mechanical engineering sciences** - Fluid Mechanics, Advanced Aerodynamics, Thermodynamics and Heat transfer, Robotics, Structural Mechanics, Data Analysis, Management, Aeroelasticity, Advanced CFD, Propulsion, Electronics

## EXPERIENCE/PROJECTS

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### **BMFA, 2022 Payload Challenge** Sep 2021 – August 2022

- Designed and manufactured a UAV within competition restrictions and guidelines
- Prerequisite aerodynamic calculations were completed and analyzed for sizing and design choices
- CAD and SolidWorks drawings were produced to aid with design choices and manufacturing
- Wind Tunnel testing was performed

### **Project – Deep learning for Object Recognition from Drones ( 92% )** Jan 2022 – May 2022

- Developed a Deep Network – A Convolutional Neural Network based algorithm was developed to conduct automatic recognition of objects perceived from Drones
- Manipulation of new AI technologies for autonomous perception

### **Manufacturing – 2022 Formula 1 Student Competition (City University)** October 2021 – July 2022

- Manufactured the CR22 Electric Vehicle using various machinery
- Produced technical drawings through SolidWorks and CAD to follow when manufacturing

### **Thesis, (First Class)** Sep 2020 - May 2021

- Analyzed effect of hydrogen firing on the existing design of a micro gas turbine
- A thermodynamic model of a micro gas turbine was programmed into MATALAB Simulink and compared against existing literature
- Non- dimensional design changes were proposed to accommodate the fuel change

## LEADERSHIP

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### **Captain, City University Football (D1)** Sep 2020 – August 2022

- Lead team to winning 2 league titles in two years as Captain with most current season making university history
- Intricate and professional communication, teamwork and leadership skills were required to manage team at such high levels of competition which will be of incredible use when undertaking engineering group projects in future.