## **Education**

The University Sept 2015 - Present

MEng Aerospace Engineering (Hons) with Industrial Year

Average for 1st & 2nd year: 69.2%

Individual Project: The use of CFD for optimisation of axi-symmetric

cooling passages in gas turbine blades

2<sup>nd</sup> Year Design Project: Commercial Passenger Jet – 73%

College Sept 2014 – June 2015

Access to HE Engineering & Technology Physics – 15 Distinctions Engineering Science – 9 Distinctions, 6 Merits Mathematics – 6 Distinctions, 9 Merits

College Sept 2010 – June 2012

NVQ Level 2 Vehicle Maintenance & Repair Heavy Vehicle NVQ

## **Employment History**

The University of

July 2018 - Sept 2018

#### **Engineering Research Intern**

- Lead development of a thermal shroud for a vacuum chamber used for testing research satellites
- Performed heat transfer analysis of system model using Microsoft Excel and VBA
- Used results of thermodynamic analysis to choose appropriate geometry of shroud chamber and liquid nitrogen cooling pipes
- Modelled and created engineering drawings of the thermal shroud assembly in Solidworks to be manufactured in the workshop as a prototype

Ltd August 2017 – Sept 2017

## Engineering Intern

- Developed a petrol & diesel engine bill of materials spreadsheet, improved user interface, used VBA to add custom functions and used formulas to provide greater detail of material usage and cost
- Used Solid Edge to redesign an engine mounting bracket, designed bracket to be manufacturable by a CNC machine, and easily sand casted by adding draft angles. Performed FEA analysis on the bracket to ensure 40% stress safety factor
- Used a CMM machine to measure the mounting features of an oil cooler and designed an adaptor plate that was successfully machined and used as a testing component
- Assisted with engine build manual development and data recording

#### **Commercials**

#### Parts Manager

June 2013 - August 2014

- Carried out administrative duties on vehicle parts storeroom, engaged with customers on sales of vehicle parts including negotiation of pricing
- Managed storeroom stock levels and ordered in stock based on past sales and upcoming workshop jobs

Vehicle Technician June 2010 – June 2013

- Carried out repair and maintenance work on customer vehicles
- Carried out routine safety inspections on customer vehicles, ensuring vehicle was fit for road use and met MAN truck and bus safety inspection standards

## **Extracurriculars**

#### The University of

#### Flight Simulation Society

#### **Project Manager**

- Manager of the societies aircraft design program, including co-writing a technical 70-page document detailing the design concepts and calculations
- Organised the year schedule of lectures, project milestones and deliverables, and assigned senior members to lecture topics to be delivered weekly
- Supervised a team of 2 students in the aircraft design project, providing guidance and assistance with the calculations involved

#### **Senior and General Member**

- Competed in a US flight simulation competition with a hybrid flying car design, through giving a presentation and having our design simulation flown by test pilots and flight test engineers. Won "Most Innovative Design" award.
- As part of a team of 3, performed initial sizing, constraints, performance, and stability analysis for a concept hybrid flying car and a 100-passenger commercial jet. Developed the CAD model of both designs for visual aid in presentations
- Implemented the above designs into the university academic simulators and tested for flight performance and stability.
- Supervised a team of 3 students in the aircraft design project, providing guidance and assistance with the calculations involved

#### **University Sub Aqua Club**

#### **Treasurer & General Member**

- Managed club finances, budgeted for future costs, and sourced new equipment
- Successfully won bid for funding by presenting to 30 other societies in a university funding event
- Attended bi-monthly meetings on society progress, worked with other committee members on costs for equipment, training, and future society events
- Completed two diving courses with the club: BSAC Ocean Diver and Sports Diver

#### **Universities Air Squadron**

Officer Cadet in RAF voluntary reserve university air squadron

- Engaged in AT, flying training, and leadership & team-building exercises.
- Organised a 2-day station visit to an RAF base

#### The University of

Officer Cadet

#### Aerospace Engineering 2<sup>nd</sup> year student representative

Acted as a liaison between the students and the staff at monthly student – staff meetings

# Skills

Solidworks, Solid Edge, LabVIEW, MATLAB, Microsoft Office, VBA programming, ANSYS Fluent & Mechanical

### Interests

Electric guitar, kayaking, skiing, scuba diving, badminton, American football, swimming, computer gaming

Sept 2018 – Present

Sept 2016 - June 2018

Sept 2017 – Present

Sept 2017 - Present

Oct 2017 - June 2018