

# TOM ELLIOTT BLAKE

## Aeronautical Engineer Student

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Loughborough, UK

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## EXPERIENCE

### Personal Mathematics Tutor

#### Private

Jan 2018 – Present Loughborough, UK

- Teaching A Level students mathematics.
- Students have experienced noteworthy improvements in their studies.
- Developed interpersonal skills such as communication, improving my ability to explain a topic effectively.

### Retail Assistant

#### Waitrose JLP

Jan 2016 – Present Dibden, UK

- Provide excellent customer service.
- Dynamic work environment where I would change roles frequently.
- Ongoing professional training opportunities, increasing my scope of responsibility in the branch.

### Intern CAD Designer

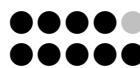
#### SR UAV

July 2018 – August 2018 London, UK

- Individual project to produce a drone concept for military surveillance.
- Use of Autodesk generative design techniques for strength optimisation.
- Designed to fit a specification brief.

## SKILLS

MATLAB, Simulink, Python,  $\text{\LaTeX}$   
NX11, Inventor, Fusion 360, CFD, FEA



## EDUCATION / COURSES

### Principles of Machine Learning: Python Edition

#### edx - online education

March 2019 – On Going

### Aeronautical Engineering BEng

#### Loughborough University

October 2017 – On Going

### Peter Symonds College

Sept 2015 – June 2017

A*	Physics	(A Level)
A	Mathematics	(A Level)
A	Chemistry	(A Level)
B	Economics	(AS Level)
A*	Extended Project	(EPQ)

## HONOURS & AWARDS

🏆 Received 1 of 6 IMechE Undergraduate Scholarships.

🏛️ Current grade First Class Honours

## STRENGTHS

Numerical Reasoning      Critical Thinking  
Leadership      Innovation      Data Analysis  
Perseverance      Communication

## PROJECTS

### Autonomous Drone Platform

- Designed for the university final year projects.
- Controlled via telemetry to a GCS.
- Customisable with the option for mobile data connectivity.

### Line Tracking Drone Integration

- Python based image layer processing.
- Control system to output flight controller inputs.

### BMFA Payload Challenge

- Leadership role in a highly competitive group.
- International competition, placing 4th.
- Winning best CAD, technical drawings & report.
- Produced a successful RC aircraft.
- Competing next year with Gen 2 aircraft.

### Structural Beam Optimisation FEA

- Minimum weight target for structural stability.
- Parametric design iteration test technique.
- Nonlinear static stress FEA.

### Car Usage Tracking Smart Utility

- OB2 port data collection & analysis.
- Logs with GPS and time data on RPi3.
- Analysing emissions, mpgs and engine health.

## INTERESTS

- Competing in rowing races for University & NRC.
- Experimenting with CAD software and coding.
- Taking aerial drone photography & cinematography.
- Building model remote control aircraft.
- Developing my DIY 3D printer.
- Keeping up-to-date with Formula 1.

# **REFERRES**

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## **Mr John Newton**

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✉ SM130, Stewart Miller Building  
Loughborough University

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## **Dr. Paul Cunningham**

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