

Ishaan Kadam

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Education

University of Bath

Sep 2023 – July 2026

BEng (Hons) Computer Systems Engineering

Predicted: First-class (First Year Average: 73%)

Year 1 Modules:

EE12001 Design Skills – 82%

EE12002 Fundamentals of engineering and analysis – 67%

EE12003 Fundamentals of electronic and electrical engineering – 71%

Salesian's Sixth Form College, Chertsey - A Levels

Sep 2021 – July 2023

Maths, Computer Science, Physics, EPQ

The Matthew Arnold School, Staines - GCSEs

Sep 2016 – July 2021

10 GCSE's (8-6) including Maths, English, Physics and Computer Science

Computing Skills

Programming languages: Strong background in GUI development, machine learning, array manipulation, and object-oriented programming. Proficient in Python, HTML, CSS, MATLAB, and Arduino.

Autodesk Inventor: Extensive experience in CAD, simulation, FEA and sheet metal design, with a strong track record of creating complex parts and projects.

OrCAD software: Proficient in circuit schematic design, PCB layout, and circuit simulation. Extensive experience in creating circuits and PCBs using the software.

MATLAB Simulink: Skilled in simulating control systems and creating block diagrams to effectively address problem requirements.

FPGA Programming: Proficient in HDL for designing and optimising FPGA based systems. Experienced in simulation, debugging and implementing digital circuits for signal processing and control applications.

Engineering projects (Extracurricular)

Dog Breed Identification ML Project

Designed and trained a neural network-based machine learning model to identify dog breeds from user-submitted images. Utilized tools such as TensorFlow, Python, MATLAB, and Jupyter Notebook to develop, test, and evaluate the system, strengthening my problem-solving abilities, attention to detail, and self-directed learning skills throughout the process

Smart Thermostat Group Project

I designed and assembled a multilayer PCB for a smart thermostat, integrating temperature sensors, user interface controls and wireless connectivity. The project involved PCB layout, making thermal considerations and adherence to design-for-manufacturing guidelines, resulting in a fully functional prototype.

Remote Controlled Car project

I constructed a remote-controlled car using four motors, an Arduino Uno, Nano, joystick, and Bluetooth module and implemented motor control, joystick input integration, wireless Bluetooth communication, and a

speed adjustment feature, enhancing my skills in Arduino programming, hardware integration, and control systems. I also led this project to gain leadership experience, guaranteeing compliance with standards.

Programming Beatrix Project

I designed a MATLAB-based GUI for a robot, enabling control of functions such as head movement, camera switching, and sound response. And further implemented facial recognition features into the camera. This aided me to enhance my skills in MATLAB and understanding of facial recognition technologies.

Pulse Oximeter project

I designed and built a dual-wavelength pulse oximeter from scratch, which included soldering circuit components onto a PCB and programming an Arduino to display heart rate data. I also conducted multiple tests on various individuals to ensure functionality, enhancing soldering and Arduino coding skills.

Work Experience

Avionics Engineer, Team Bath Drones, Bath

Sep 2024 - Present

As a member of Team Bath Drones, I am contributing to the design, development, and testing of drones for the IMechE UAS competition. My role involves assisting with drone assembly, optimizing performance to meet competition standards, and collaborating closely with teammates to address technical challenges. This experience has enhanced my skills in systems engineering, testing methodologies, problem solving and teamwork under tight deadlines.

Sponsorship Coordinator, Team Bath Drones, Bath

Sep 2024 - Present

I successfully secured key sponsorships from industry leaders such as Ansys and RS Components, ensuring critical funding for this year's competition. To achieve this, I designed a detailed sponsorship booklet that effectively communicated the team's goals and vision, addressing potential ambiguities to align with sponsor's expectations. My attention to detail in crafting clear, compelling messaging strengthen industry partnerships and secured essential financial support.

Summer Intern, Cloudville Ltd, Staines-Up-on-Thames

June 2023 – Sep 2023

I worked in the IT department at Cloudville Ltd over the summer, successfully delivering a major IT project on time and within budget. I played a key role in testing and ensuring all website components functioned correctly, requiring problem solving and critical thinking to identify and resolve issues efficiently. This experience also strengthened my time management and communication skills through daily task completion.

Assistant kickboxing trainer, Knowle Green Kickboxing gym, Staines

July 2021 – Sep 2023

I worked as an assistant kickboxing trainer after achieving my black belt where I coached children aged 4-8, ensuring they practiced various techniques safely. This role developed my communication and critical thinking skills, as I had to effectively explain techniques to the children and communicate progress and improvements to their parents.

Activities and Interests

- Kickboxing Black Belt 1st Dan
- Part of the University of Bath cricket team