

Anish Patel

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PROFILE

As a Computer Systems Engineering graduate from Brunel University London, I have a strong passion for artificial intelligence, and a solid foundation in software engineering, hardware design, and system integration. I have honed my skills in using various tools and technologies such as HTML, CSS, JavaScript, Python, Java and C++.

EDUCATION

Bachelor of Engineering, Computer Systems Engineering Sep 2020 – Jul 2023 | London, UK

Brunel University London

Grade: Second Class (Lower Division) Honours

Relevant Modules: *Design for IoT, Artificial Intelligence Systems, Embedded Systems, Sensors & Automation, Object Oriented Systems & Programming, Data Networks, Services & Security*

BTEC Level 3 National Extended Diploma, Electrical Engineering Sep 2018 – Jul 2020 | London, UK

Uxbridge College

Grade: D*DD

10 A-C GCSEs (Including Maths, Science & English) Sep 2013 – Jul 2018 | London, UK

Whitmore High School

SKILLS

Programming Languages:

HTML | CSS | JavaScript | Python | Java | SQL | C | C++ | VHDL | Verilog | MATLAB

Tools:

Visual Studio | VS Code | Microsoft Office | GIT | GitHub | NetBeans | Anaconda | Fusion360 | Quartus II | MPLAB | Flowcode | LabVIEW | OpenCV | Figma | WordPress

RELEVANT PROJECTS

Banking Software System - Java | Netbeans IDE

- Utilized Java NetBeans to create a functional GUI for a banking system which uses software principles such as one-to-many relationships, polymorphism and inheritance.
- The banking system allows users to view and edit their personal information, transfer funds between different accounts, and is able to allow certain access to different classes for different types of users which are grouped as: Clients, Managers, Employees, and Administrators.
- User data is stored on an external file which gets updated in real time.

Design and implementation of sequence detector on FPGA - VHDL | Xilinx Vivado

- Collaborated in a team of 3 to design and implement a sequence detector using a NEXYS FPGA board.
- Utilized Xilinx Vivado software to program the FPGA board using VHDL for controlling switches and LEDs.
- Implemented functionality allowing input of up to 10 symbols after initiating the sequence.
- Designed system to activate LED flashing upon correct sequence input.
- Programmed system to lock after 10 symbols inputted without the correct sequence, with LEDs indicating incorrect input.

Smart Mirror with Voice & Face Detection - HTML | CSS | JavaScript | Python | OpenCV | Raspberry Pi

- Developed a Smart Mirror with the aim of seamlessly integrating daily information and providing an interactive interface in a household setting.
- Leveraged OpenCV library with Python for real time facial detection and classification.
- Developed a custom user interface using HTML, CSS, and JavaScript to display widgets such as weather forecasts and calendar events.
- Integrated voice control through Amazons Alexa API, allowing users to access information and control smart home devices with voice commands.
- Selected and integrated essential hardware components, including a 27-inch display, Raspberry Pi 4, and PIR motion sensor to reduce electricity running costs by 20%.

Conveyor Belt Weighted Sorting System with Counter - C++ | Arduino

- Collaborated with a team of 3 to engineer a conveyor belt sorting system designed to efficiently separate payloads between two different destinations based on their weight, identifying the need for efficient product sorting through the use of Arduino with C++.
- Implemented using Force-Sensing Resistor (FSR) technology which interfaced with an Arduino microcontroller. FSR sensor would trigger the activation of the conveyor belt motor and a servo mechanism upon detecting packages exceeding a specified weight which would direct them to their designated location.
- The system featured real-time payload counting, tracking those surpassing the predefined weight threshold and those falling below it.
- Achieved 100% accuracy in separating different blocks as well as the current weight of the payload on the FSR sensor was presented to the user on an LCD.

IoT Surveillance Camera With Port Forwarding - Python | Raspberry Pi

- Utilized Python to create an IoT surveillance camera system on Raspberry Pi.
- Enabled port forwarding to facilitate remote control and access from any location.
- Developed an IoT Surveillance Camera triggering a 10-second video capture upon motion detection using a PIR sensor connected to GPIO ports.
- Implemented file saving with current date and time for organized storage and easy retrieval.
- Established a web server to enable remote access to the live feed of the surveillance camera.

PROFESSIONAL EXPERIENCE

Retail Sales Assistant

Aug 2017 – Present | London, UK

Colorama Imaging Specialists

- Contribute to achieving sales targets by actively engaging with customers, promoting special offers and recommending additional products.
- Manage inventory levels by monitoring stock levels, conducting regular stock checks and assisting in inventory ordering processes.
- Conduct regular checks on equipment and fixtures to identify and address maintenance needs promptly, contributing to a safe and functional retail environment.
- Carefully handle customer transactions to ensure accuracy in pricing and payment processing.
- Collaborate closely with the team to accurately communicate customer requirements and ensure seamless implementation of solutions.
- Thrive in a fast-paced environment by effectively managing multiple responsibilities and working under pressure to meet customer demands.
- Attentively listen to customer inquiries and concerns, providing accurate information and resolving issues promptly.
- Maintain and build relationships with 100+ customers daily through providing exceptional customer service which translates to a rating of 4.7/5 on Google Reviews.

LICENSES & CERTIFICATIONS

UK Drivers License

DVLA

PENDING: CompTIA Network+

Expected: June 2024

TESTIMONIALS

Maysam Abbod

Nov 2023

Professor at Brunel University London

"Anish has done his study in Brunel University London. I have supervised his project which he has done a great job on designing an electronic mirror that reminds user of their schedule and any messages that comes on the day. He has implemented the system practically and tested it successfully giving him good coding and hardware building skills."

Yacin Al Noor

Nov 2023

Computer Systems Engineering Graduate

"I worked together with Anish on an embedded systems project where the task was to create a sequence detector on an FPGA. Anish's team working and problem solving skills are truly commendable and he contributing immensely to designing the fundamentals of the system."

Akram Khan

Oct 2023

Professor in Experimental Particle Physics at Brunel University London

"It was a pleasure to teach Anish, for he had a lot of technical insight into computer systems engineering which helped us explore lateral applications. He has a good grasp in most modern programming languages but a willingness to learn!"

Jamie Hirst

Oct 2023

Analyst Software Engineer at Senapt

"I first met Anish when we were studying electrical engineering at Uxbridge college and we continued our studies together into our computer systems engineering degrees at Brunel University London. He is a very hard worker and a talented engineer with a natural aptitude for understanding new, complex concepts and applying them in a creative and coherent way to existing systems as well as his own innovative projects. He is quick to help, professional, reliable and trustworthy, he will be an asset to any future engineering company he may work for."

LANGUAGES

English

Native

Gujarati (GCSE)

Professional Working Proficiency

INTERESTS

Formula 1 | Health & Fitness | Automobiles | SIM Racing

REFERENCES

Available Upon Request