Param Hingorani

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- First-year BSc/MSc Immersive Software Engineering student at the University of Limerick, building full-stack web applications, Java utilities, and automated software workflows.
- Built an Astro, Docker, and AWS bond-tracking dashboard with automated testing (Vitest, Playwright) and engineered an industrial testing system at Astra Autolites that cut test times by ~40%.
- Experienced in Java, Python, Linux, and collaborative team software development, alongside founding MouseMitra (1,000+ units sold across 3 countries).

Technical Skills (I = Intermediate, B = Beginner)

- Languages: Java (I), Python (I), C (B), HTML/CSS (B)
- Utilities: Git (I), Linux (I), AWS (B)
- Others: Electronics (I)

Projects

Bond Tracking & DevOps Dashboard | Autumn 2026 | github.com/realP1406/cs4421-astro-blog

- Built a full-stack bond portfolio tracking dashboard using Astro, containerised with Docker, and deployed on AWS.
- Configured and evaluated multiple rendering architectures (SSR, Static, and Hybrid) alongside deployment rollback workflows to practise core DevOps fundamentals.
- Implemented automated unit and end-to-end testing plus static code analysis using Vitest, Playwright, and ESLint.

Java Hardware Inspector (Team Project) | Autumn 2026 | github.com/Claitonbatistibueno/cs4421-computer-organization

- Collaborated in a 4-person team to build a Java application that queries, parses, and displays host system hardware specifications.
- Designed modular data-extraction components and divided feature implementation across teammates to ensure clean integration and consistent output formatting.

Automated Current-Testing System, Astra Autolites | Jul – Aug 2025

- Built a Python (pyserial, openpyxl) and Arduino/INA260 automated validation tool with API support that captures bulb current, checks specifications in real time, and generates Excel exception reports.
- Cut per-bulb testing time by ~40% and eliminated an estimated 15–20 manual verification errors per week by merging measurement and pass/fail checks into a single automated step.
- Evaluated three sensor-calibration alternatives and implemented the most cost-effective solution after feedback from senior technicians.

ESP32 Macropad with Custom FreeRTOS Firmware | In Progress

- Built a 4-button programmable macropad featuring a rotary encoder and OLED display powered by an ESP32.
- Architected concurrent FreeRTOS tasks communicating via thread-safe event queues to decouple button and encoder input scanning from OLED display updates and host output.

Education

University of Limerick | BSc/MSc Immersive Software Engineering | 2026 – Present

- Year 1 Modules: CS4421 Computer Organization, Introduction to OOP, Basic C, DevOps, and CareersLab.

Symbiosis International School, Pune | International Baccalaureate (IB) Diploma | 2022 – 2026

- Higher Level: Mathematics, Physics, Chemistry | IGCSE: A grades in Mathematics, Physics, Chemistry, and Computer Science.
- Extended Essay (Chemistry): Investigated green hydrogen electrolytic cells, evaluating how temperature and electrolyte concentration affect yield efficiency and operational safety.

Experience

Founder & Product Engineer, MouseMitra (Registered MSME, India; Design Patent Pending) | Aug 2024 – Present

- Scaled an ergonomic 3D-printed wrist rest to 1,000+ units sold across 3 countries online, building 3 clinic partnerships and running 8 preventive-care drives.
- Designed the product in Onshape for carpal tunnel prevention at under $0.40 per unit with input from 5 doctors, iterating through 4 prototypes after friction testing and feedback from software engineers

Leader, Peer Reading & Inclusive Learning Programmes, Symbiosis International School | Mar 2025 – Feb 2026

- Directed 30+ IB mentors delivering structured reading sessions to 225+ primary learners (PYP 2–3), organising rotation schedules and group allocations at a ~1:10 mentor-to-student ratio.
- Delivered 10 weeks of 1-on-1 academic mentorship for a student with special educational needs (SEN) and tutored 20 Grade 10 students in mathematics

Quality Control Engineering Intern, Astra Autolites | Jul – Aug 2025 | Employer Verification

- Executed core automotive lighting validation—LCL filament stability, lumen output, and multi-cycle colorimeter tests—across production batches.
- Identified manual data logging as a bottleneck and independently engineered an automated testing solution adopted into the plant's standard QC workflow to improve accuracy and reduce operational costs.

Founder & Lead Organiser, School-Wide Book Donation Drive, Symbiosis International School | Jan – Jul 2025 | Verified CAS Portfolio

- Collected 618 books for local charities including the MAHER Foundation—exceeding the 450-book target by 37%—by replacing single-day drives with a week-long, 30+ drop-off-point model.
- Secured approvals across 5 academic programme coordinators and principals while coordinating logistics across a 3-person team.

Part-Time Technician & Sales Assistant, Surya Mobile Cover Accessories | Jun 2025 | Employment Certificate

- Diagnosed and resolved customer software issues across multiple devices, progressing from observation to independent hardware repairs including an iQOO Z9s 5G battery replacement.
- Co-designed and implemented a reorganised inventory tracking system to streamline daily stock checks and counter sales.

Fintech Shadowing Intern, FinIQ Solutions Limited (UK) | Dec 2024 – Feb 2025 | Employer Verification

- Completed a 1-month remote shadowing programme with the CEO of a 15-country financial engineering firm, synthesising market and geopolitical research into executive briefing notes and digital banking presentations.
- Built UI/UX prototypes in HTML, CSS, and Excel to visualise proposed workflow improvements.

Interests and Achievements

- CEMC Fermat Contest, University of Waterloo (2025): Awarded Certificate of Distinction (top 25% of contestants).
- CS50P: Introduction to Programming with Python, Harvard (Jan 2025): Completed certification covering Python programming, unit testing, file I/O, and object-oriented design.
- IAYP Silver Adventurous Journey (Nov 2024): Completed 3 mountain treks in Coorg, helping coordinate navigation, pacing, and water rationing for a 42-person group without instructors on the final trek.
- Event Operations & Student Leadership: Co-organised a 3v3 school debate; produced live AV playback, highlight videos, and cohesive branding (banners, badges, QR feedback posters) for graduation, IBDP bonding, and university fair events.