

SALMA AHMED

FINAL-YEAR SOFTWARE ENGINEERING WITH ELECTRONICS STUDENT

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PROFILE

Final-year BEng Software Engineering with Electronics student with practical experience across software development, machine learning and embedded systems. Comfortable moving from requirements and data analysis to implementation, testing and clear documentation, with strong organisation and communication from customer-facing work. Seeking graduate opportunities across technology and engineering.

EDUCATION

BEng (Hons) Software Engineering with Electronics — *University of Westminster*

2024–2027

Expected graduation: 2027

Selected study: Operating Systems, Object-Oriented Programming, Sensors and Signals, Embedded Systems, Cyber Security, Algorithms, Applied Mathematics and Electronics.

TECHNICAL PROJECTS

F1 Pit-Stop Model Fairness Analysis — *Python / Machine Learning*

2026

- Prepared race data with pandas and trained a Decision Tree Regressor to predict pit-stop lap-time variation; compared mean absolute error across team-resource tiers and tested disaggregated models as a mitigation approach, documenting the fairness/performance trade-off and limitations.

Autonomous Micro-Mouse Robot — *MBED LPC1768 / C++*

2026

- Integrated seven active-low infrared sensors with stepper-motor control through L297 and ULN2003A circuitry; developed a sense-plan-act structure with wall/distance grids and flood-fill path planning, then tested integration behaviour and documented system risks.

Dual-Thermistor Temperature Monitoring System — *PIC16F877A / Assembly / C*

2025

- Designed and simulated a two-channel temperature-sensing system with analogue conditioning, ADC acquisition and LCD output using MATLAB Simscape, MPLAB X and PicSimLab; implemented and tested the embedded firmware.

EXPERIENCE

Talent Bank Associate, Front of House — *University of Westminster*

May 2026–Present

- Provide front-of-house support across a busy university estate, processing access requests and maintaining accurate records using Event Monitor; coordinate operational tasks, deliveries and room activity through Concept Evolution and Omnipost.

Tutor and Supervisor — *Best Tutors*

Jan 2022–May 2024

- Planned and delivered learning support, maintained learner records and used progress information to adapt sessions for multiple students.

Volunteer Chess Club Coach — *Local Library*

Present

- Coach children at a weekly community chess club, explaining strategies clearly and adapting support to different ages and confidence levels.

TECHNICAL SKILLS

Programming: Python, C++, C, C#, PIC Assembly, MATLAB, HTML/CSS, JavaScript, basic SQL

Data and ML: pandas, NumPy, scikit-learn, Matplotlib, data preparation, model evaluation

Embedded and engineering: MBED LPC1768, PIC16F877A, sensors, ADC, motor control, circuit simulation, system testing

Tools: Git/GitHub, Linux/Unix, MPLAB X, PicSimLab, MATLAB Simscape, Visual Studio, Microsoft Office

Development & activities: Femetronics ML F1 Flux; Work-Based Learning programme; Westminster Employability Award; Women in STEM and Femetronics member.