Aleena Ali Azeem

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Profile

Master of Applied Computing student at the University of Windsor with strong foundations in software development, testing, and problem-solving. Experienced in Linux & Windows environments, scripting, automation, and object-oriented programming (Python, C, C++). Proven track record in leading technical projects, debugging complex systems, and building IoT prototypes with wireless integration. Recognized through hackathon wins and Demo Day selections for delivering innovative and reliable solutions.

Technical Skills

- **Programming**: Python, C, C++, Java, R, JavaScript, React
- **Testing & Automation:** Manual Testing, Test Case Design, Regression Testing, Automated ETL Scripts, Debugging
- **Operating Systems:** Linux (NVIDIA HPC cluster, Ubuntu), Windows, macOS
- **Tools & Methodologies**: Git/GitHub, Jira, Agile/Scrum, Power BI, Tableau, Jupyter, VS Code
- **Wireless & IoT Exposure:** ESP32, Bluetooth, Wi-Fi, Firebase, Real-time data pipelines

Education

University of Windsor – Master of Applied Computing
Jan 2025 – Present
Coursework: Databases, System Programming, Distributed Systems, Computing Concepts

Forman Christian College University – Bachelor of Science in Computer Science
Sep 2019 – Nov 2023
Coursework: Embedded Systems, Data Mining & Warehousing, Artificial Intelligence, NLP

Experience

Lab Engineer – Forman Christian College University, Pakistan
Aug 2023 – Dec 2024
• Designed and evaluated programming assignments emphasizing debugging, data handling, and software testing, improving student outcomes by 15%.
• Mentored 30+ students in Python, R, and SQL, guiding them in ETL workflows and validation strategies for real-world datasets.
• Introduced automation scripts to streamline grading and testing reproducibility.

Research Assistant – Punjab University, Lahore
Jul 2023 – Aug 2023
• Performed data cleaning, transformation, and validation of 100,000+ records using Python, ensuring reproducibility and reliability.
• Designed dashboards and test visualizations in Power BI, accelerating insights by 25%.
• Automated repeatable workflows for exploratory analysis.

IoT Intern – National Incubation Centre, Lahore
Feb 2023 – Jul 2023
• Developed Python scripts for real-time IoT sensor pipelines, reducing latency by 25%.

• Designed dashboards to test & monitor IoT device data, reducing manual reporting time by 30%.
• Collaborated in Agile sprints to debug and integrate device firmware with data platforms.

Projects

Campnest – Student Rental Web App (MAC Project)
Jan 2025 – Apr 2025
• Led a 4-member Agile team to develop a full-stack housing platform with SQL database models.
• Implemented fraud detection and verification tests ensuring 100% validated listings.

Nimbus Navigator – Cloud Storage Analysis Tool (MAC Project)
Jan 2025 – Apr 2025
• Built analytical algorithms for comparing AWS, Azure, GCP; reduced manual comparison effort by 30%.
• Oversaw integration testing, debugging, and documentation.

Smart Cupboard – IoT Grab-and-Go Facility
Jan 2023 – Jun 2023
• Built an Amazon Go-style prototype using ESP32 + facial recognition, integrated with Firebase.
• Achieved 95% recognition accuracy, reducing checkout errors by 25%.

Gesture & Voice-Controlled IoT Device (Hackathon Winner)
Jul 2022 – Aug 2022
• Engineered gesture recognition + voice command system, calibrated sensors, cut latency by 60%.
• Focused on performance testing and reliability under noise conditions.

Leadership & Awards

• Co-Founder, Tech Women Hub – 50+ members, career sessions, outreach (2022 – Present)
• President, Forman Women in Computing Club – Led 20+ peers, workshops, outreach to 1000+ students
• Awards: Winner – UWill Discover Hackathon (2025), Demo Day Selection (2025), Grandeur IoT Hackathon Winner (2022), Vice Rector's List (2020, 2021)

Certifications

• Data Science Specialization, LUMS (2025)
• NVIDIA RAPIDS – Accelerated Data Science (2022)