

# **Yuxuan Xie**

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## **Summary**

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Results-driven and innovative IoT Engineering student with hands-on experience in embedded systems, computer vision, and agile development methodologies. Proficient in Python, micro:bit, and edge AI integration, with a strong focus on privacy-aware system design. Demonstrated ability to manage full project lifecycles using Scrum, from hardware assembly to software implementation and version control.

## **Skills**

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Languages: **C#, Python, Java**

Embedded Systems: STM32, micro:bit, Raspberry Pi

Operating Systems: Linux (Ubuntu)

Tools: Git, Docker, VS Code, Mu Editor, Azure

Protocols & Platforms: AWS IoT

## **PROJECT EXPERIENCE**

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### **Agile-Driven micro:bit Robot with Face Recognition | Personal Project | Dec 2025**

Description: Developed an intelligent car using micro:bit, integrating camera module for face recognition.

Technologies: Python, micro:bit, OpenCV, hashing algorithms, Agile/Scrum

- Implemented LED matrix display for visual feedback and hashing module for privacy protection.
- Managed project using Scrum framework with sprint planning, burndown charts, and GitHub version control.

### **Agile-Based micro:bit Robot Control System | Personal Project | Oct 2025**

Description: Developed a fully functional robotic car using micro:bit and Python, implementing motion control through an Agile Scrum framework across three structured sprints.

Technologies: Python, micro:bit, Agile/Scrum, Git, Excel, Embedded Systems

- Designed and programmed core movement modules including directional control, variable speed adjustment, and predefined path execution (L-shape, square, etc.).
- Built and tested hardware components including motors, wheels, and sensors, ensuring reliable integration with software control logic.
- Managed project lifecycle using burndown charts and sprint reviews in Microsoft Excel, enabling real-time progress tracking and iterative adjustments.
- Maintained clean version control via GitHub, with documented commits and a complete repository showcasing code, reports, and demonstration videos.

## **Education**

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Major: Internet of Things Engineering (Dual Degree Programme)

Nanjing University of Information Science & Technology (NUIST)

& South East Technological University (SETU), Ireland

Expected Graduation: 2027