Reflection & Lessons Learned

Throughout this capstone, I gained valuable experience working with AWS IoT Core, DynamoDB, and Lambda. I learned how cloud services integrate with hardware and the importance of modular design.

Key takeaways:

- Setting up AWS IoT Core taught me about MQTT messaging, device authentication, and cloud communication models.

- Troubleshooting Raspberry Pi and Arduino helped me build patience and develop strong debugging skills.

- I discovered the importance of clean serial data handling and good logging practices.

- I learned how small daily progress leads to major breakthroughs in system integration.

- Frontend and backend synchronization helped me appreciate full-stack thinking.

This project gave me the confidence to pursue more advanced cloud/IoT integrations and helped prepare me for real-world systems engineering challenges.