

# Abdullah Alafari

Computer Science, Prince Sultan University  
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## Summary

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Computer Science student who likes building systems that are actually used, not just small demos.

Built and run a smart home setup across a multi-floor house, handling things like Zigbee reliability, Linux services, MQTT communication, and network setup in a real environment where coverage, interference, and maintenance matter.

## Projects

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**Local Smart Home and Self-Hosted Infrastructure** 2023 – Present

*Independent Project*

- Built and maintained a fully local smart home system (similar to Apple Home, but self-hosted) across a multi-floor house using Home Assistant, MQTT, and Docker on a Synology NAS
- Migrated devices from Tuya and other cloud-based IoT companies to local control to eliminate cloud dependency
- Set up remote access and system administration using WireGuard and SSH, without exposing services directly to the public internet
- Diagnosed and improved Zigbee network reliability across 100+ devices by analyzing mesh behavior, interference, and signal paths, then adjusting router placement and device distribution

## Experience

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**Intern – Mawhiba Alumni** Jun 2025 – Jul 2025

*King Abdulaziz and His Companions Foundation for Giftedness and Creativity (Mawhiba)*

- Reviewed the Mawhiba Alumni landing page and admin panel to identify bugs, usability problems, and weak points in the workflow
- Documented findings clearly so the team could review problems and decide what needed improvement

## Education & Training

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**Bachelor of Science in Computer Science** Expected Graduation: 2028

Prince Sultan University, College of Computer and Information Science, Riyadh, Saudi Arabia

GPA: 3.83/4.00

**Mechatronics Bootcamp** Jan 2026 – Feb 2026

Tuwaiq Academy, Riyadh, Saudi Arabia

**CCNA Training Program** Jan 2025 – Feb 2025

Tuwaiq Academy, Riyadh, Saudi Arabia

## Leadership

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**President – Game Development Club** 2025 – Present

*Prince Sultan University*

- Work with members across different roles to turn ideas into actual projects and planned activities

## Technical Skills

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**Systems:** Linux, Docker, Synology NAS, SSH, self-hosted services, Home Assistant, MQTT

**Networking:** VLANs, routing, WireGuard, Zigbee troubleshooting

**Hardware:** Arduino, ESP32, Raspberry Pi

**Programming:** Python, C/C++ (Arduino), Java, Bash