Amir Bin Shahrani

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Summary

Highly motivated Dean's List *Computer Science* undergraduate and *MARA YTP Scholar* with passion in developing projects in **cloud-native development**, **AI integration**, and **DevOps automation**. Interested in architecting *serverless solutions on AWS* and deploying *scalable backend systems*. Seeking an internship opportunity from **May 2026 until Dec 2026** to contribute to innovative technical projects in a real-world environment.

Skills

Languages: Python, Java, C++, JavaScript, SQL, HTML/CSS, Bash, Lua

Frameworks & Libraries: FastAPI, Flask, TailwindCSS, n8n, Ollama, Pinecone

Cloud & DevOps: AWS (Lambda, API Gateway, Amplify, S3), Docker, Nginx, Caddy, DigitalOcean, Cloudflare, Tailscale, Git/GitHub

Tools & Platforms: Linux (Ubuntu, Arch), Oracle DB, Wireshark, Huawei ENSP, Figma

Education

Universiti Teknologi PETRONAS, Bachelor in Computer Science — Sept 2024 – Present
- CGPA: 3.84, Dean's List Recipient for 4 Semesters

Universiti Teknologi PETRONAS, Foundation in Computer Science — Sept 2023 – Aug 2024
- CGPA: 3.66, Dean's List Recipient for 3 Semesters

Projects

NADI.ai — Feb 2026

Next.js, FastAPI, LiveKit, n8n, Mapbox, Google Gemini
- Co-developed a multimodal campus companion featuring **real-time voice interaction** and **Markdown-enabled text chat** for students.
- Built an interactive **3D Campus Map** with **Mapbox GL JS**, featuring *113+ locations* and animated pathfinding for route visualization.
- Implemented a **RAG pipeline via n8n** to deliver context-aware answers regarding academic guidelines and campus facilities.
- Engineered a voice pipeline using **LiveKit Agents** and **Deepgram**, enabling low-latency natural language processing and synthesis.

PotSoft ↗ — Feb 2026

Flutter, FastAPI, Google Gemini, Google Maps
- Co-developed a cross-platform civic platform utilizing **Gemini 2.5 Flash** for real-time multimodal vision analysis to classify pothole severity and estimate repair times.
- Built a comprehensive contractor dashboard featuring **AI-generated analytics** for trend analysis and priority recommendations, optimizing maintenance workflows for *40+ jurisdictions*.
- Integrated **Google Maps Platform** with custom color-coded markers and clustering to visualize high-risk road hazards for both citizens and repair crews.

It's Me Event ↗ — Sept 2025

React, Python, AWS (Amplify, Lambda, API Gateway, S3)
- Co-developed a cloud-native crowd monitoring dashboard utilizing **SageMaker DeepAR** to perform time-series forecasting for venue occupancy across 5 zones.
- Engineered a serverless backend using **AWS Lambda** and **API Gateway** to orchestrate real-time predictions.
- Built a high-performance **React** dashboard on **AWS Amplify** featuring automated risk detection for overcapacity and load imbalances.

Homelab Media Server Infrastructure Apr 2025

Windows, Ubuntu, OpenVPN, Caddy, Cloudflare, CrowdSec

- Designed a hybrid infrastructure by hosting media services on a local **Windows** environment while leveraging a **DigitalOcean Ubuntu** VPS as a secure public gateway.
- Configured a persistent **OpenVPN** tunnel to bridge the local network with the cloud VPS, effectively bypassing ISP CGNAT and enabling remote access to local resources.
- Secured public endpoints using **Caddy** as a reverse proxy on the VPS, integrated with **Cloudflare** DNS and **CrowdSec** for automated threat mitigation and DDOS protection.

Hackathons and Competitions

Gold Award, i-GEN 2026 Feb 2026

- Co-developed *NADI.ai*, a comprehensive campus support system that automates information retrieval and navigation using AI-driven voice and text interfaces.

Participant, KitaHack 2026 Feb 2026

- Co-developed *PotSoft*, an AI-driven civic infrastructure platform using Gemini 2.5 Flash and Flutter to automate pothole detection and reporting.

Participant, Great AI Malaysia Hackathon 2025 Sept 2025

- Co-developed *It's Me Event*, a cloud-native safety solution that utilizes predictive analytics and AWS serverless architecture to monitor and manage crowd density for large public gatherings.

Finalist, Setel Hackathon 2024 Dec 2024

- Co-developed *AemanAI*, an automated workforce management platform that optimizes retail staffing levels by aligning employee shifts with forecasted peak customer hours.

Participant, Oh My Code (OMC) 2024 May 2024

- Developed *VitalEdge*, a gamified health and fitness application designed to increase user engagement through progress tracking and interactive goal-setting.

Volunteerism

Media Team, TechSpire: STEM Beyond Boundaries Feb 2026

- Designed promotional materials and managed comprehensive photography, videography, and social media for a STEM educational event benefiting 38 secondary school students.

Media Team, Terra: Down to Earth Programme Oct 2023

- Designed a commemorative banner and captured photo and video documentation to promote environmental preservation awareness during an educational outreach event at an orphanage.

Certifications

AWS Academy Graduate - Generative AI Foundations ⧉ Jan 2026

AWS Academy Graduate - Machine Learning Foundations ⧉ Jan 2026

AWS Academy Graduate - Machine Learning for Natural Language Processing ⧉ Jan 2026

References

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