AMMAR SYAHANSYAH

Software Engineer | Data Analytics
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SUMMARY

Software Engineer with a Bachelor of Software Engineering (Honours), combining full-stack development with data analytics. Built an AI dental assessment platform (YOLOv5, React, Flask) and a real-time collaborative canvas, and validated GTM and GA4 tracking for clients in insurance, aviation, finance and logistics.

TECHNICAL SKILLS

Languages: Python, JavaScript, HTML, CSS, SQL
Frameworks and Libraries: React.js, React Konva, Flask, Three.js, CSS3D
AI and Cloud: YOLOv5, LabelImg, Google Colab, Firebase, Google OAuth, GitHub OAuth, Google Sheets API, WebSockets, Yjs
Tools and Practices: Git, REST APIs, deployment (Firebase Hosting, Cloudflare hosting)
Analytics and Ad Tech: Google Tag Manager, Google Analytics 4 (GA4), Google Web Designer, Google Studio
IT Support: Windows and Linux setup, PC assembly and troubleshooting, hardware diagnostics, SOP documentation

WORK EXPERIENCE

Data Analyst Intern | Kasatria Technologies | Mar 2026 – Jul 2026

- Wrote about 6 tracking specifications and validated GTM deployments for clients including a Malaysian insurer, a Philippine airline, a national investment fund manager and a national courier and logistics company, checking each requested event against the live website or app.
- Authored about 8 integration guides (some exceeding 100 slides) for client engineers: annotated screenshots of the client's website or mobile app, highlighted each function requested by the data science team, and added the implementation code for each.
- Audited GTM and GA4 data layers to eliminate tracking gaps and ensure data integrity.
- Developed and deployed dynamic rich media ads using Google Web Designer and Google Studio.

IT Department Intern | De Rhu Beach Resort | Apr 2022 – Aug 2022

- Coordinated the migration of the resort's telephone system from traditional landlines to a Wi-Fi based infrastructure.
- Liaised between resort management and external IT vendors.
- Maintained server and networking hardware.

PROJECTS

Live demos and code available at portfolio.ammarcastelo.workers.dev

Real-Time Collaborative Canvas (RTCC) | React, React Konva, Yjs, WebSockets

- Built a real-time collaborative whiteboard using Yjs CRDTs, so users edit shapes together without merge conflicts.
- Built a Node.js WebSocket server with multi-room sync, live cursors and disk snapshot persistence.

DentAI: AI-Powered Dental Assessment Platform | React.js, Flask, Firebase, YOLOv5, Google Colab

- Trained a YOLOv5 object-detection model on annotated intraoral images (LabelImg, Google Colab GPUs) to detect caries, gingivitis, ulcers and tooth discoloration, reaching 100% classification on three classes and 82% on gingivitis.
- Built a multi-role platform for patients, clinic admins and system admins, with a React.js frontend, a Flask API for real-time image analysis, and Firebase for authentication, data and hosting.
- Added severity-based advice, progress history, reminders and appointment booking.
- Validated with a 32-person user acceptance test (including licensed dentists); 88% agreed that linking AI results to appointment booking adds significant value.

3D Data Visualization | Three.js, CSS3D, JavaScript, Google OAuth, Google Sheets API

- Built an interactive 3D visualization that loads up to 150 live records from Google Sheets (Sheets API) and renders each as a CSS3D card with photo, name and net worth.
- Implemented four animated layouts (table, sphere, double helix, 3D grid) using Three.js, Tween.js transitions and trackball pan, zoom and rotate controls.
- Parsed and cleaned spreadsheet data (currency strings, missing images) and colour-coded cards by net worth band.

EDUCATION

Universiti Kuala Lumpur (UniKL) | Bachelor of Software Engineering (Honours) | Feb 2023 – Jul 2026
CGPA: 3.45

Kolej Vokasional Ipoh, Perak | DVM in Information Technology | Mar 2018 – Mar 2022
CGPA: 3.69 | Sijil Kemahiran Malaysia (SKM) Level 3