Wollongong, NSW 2500 | 0452609840 | aalokm875@gmail.com

AALOK MANDAL

PERSONAL PORTFOLIO WEBSITE

- https://akm164.github.io/My3DWebsite/

EDUCATION

University Of Wollongong, Wollongong, NSW
Bachelor of Computer Science: Double Major: Software Engineering & Artificial Intelligence & Big Data
[2024 – Present]

UOW College, Wollongong, NSW
Diploma of Information Technology: Equivalent to Year 1 Computer Science, credited toward SENG & AIBD majors
[2023 – 2024]

International Institute of Education, Sydney, NSW
Certificate IV in Information Technology: Foundation in core IT skills; credited toward UOW Diploma of IT
[2022 – 2023]

PROFESSIONAL SUMMARY

Fast-learning Computer Science student at UOW, double-majoring in Software Engineering & Artificial Intelligence & Big Data, with a Diploma of IT and Cert IV (Distinction). Aspiring software developer proficient in Python, having built RESTful APIs with Flask and Django.

I'm passionate about data analytics and full-stack development, work well in teams, and strive to produce creative, superior software. With my expertise in cloud computing, machine learning, and algorithm design, I am excellent at converting challenging specifications into dependable, user-focused apps. Eager to embrace emerging technologies, I'm dedicated to continuous learning and driving impactful results.

SKILLS

- **Python**
- **React**
- **Next.js**
- **Machine Learning**

- **SQL**
- **JavaScript**
- **AWS Cloud tools**
- **HTML/CSS**

- **Cloud deployment**
- **Django**
- **GitHub**
- **RESTful API**

WORK HISTORY

Software Developer Intern (07/2024 to 11/2024)
Realta Logic, Sydney

- Developed and refactored Python modules for essential application features in collaboration with a senior software engineer.
- Participated in daily stand-ups, planning sessions, and retrospectives while working in Agile sprints with a multi-developer team.
- Authored and maintained unit and integration tests using pytest, boosting code reliability and streamlining the CI/CD pipeline.
- Conducted code reviews and managed feature branches in Git, resolving merge conflicts and ensuring adherence to coding standards.

Sous Chef (08/2022 to 12/2024)
Illawarra Yacht Club, Wollongong

- Collaborated with kitchen and front-of-house teams for seamless service.
- Communicated menu updates and special requests clearly
- Trained and mentored junior cooks on recipes and safety
- Troubleshot equipment and supply issues under time pressure

KNOWLEDGE & PROJECTS

- **Web Development:** Using **HTML**, **CSS**, and **JavaScript**, I have created 10+ responsive websites, such as CleanPro, SceneCraft3D, SoftwareEngineerWebsite, MyWebsite3D, and Student-Life-Manager. For smooth user experiences, I integrated **CMS APIs**, designed user-friendly layouts, and made sure they worked across browsers.

- **Vue.js & Mobile Apps:** I developed **SPAs** with component-based architecture and **Vuex** state management using Vue.js, including CivilEngineer and Hostel3DWebsite. Additionally, I used **NativeScript** to create two cross-platform mobile apps (CarDetailing, MobileRepairing) that integrated push notifications, offline storage, and camera access.

- **Python & Game Development:** I used **Python** to create QuizGame, which has timed challenges, randomised questions, and scoring logic. I used **Git** and **iterative testing** to create clean, modular code in DuckGame by combining Python scripting with **JavaScript** for sprite animation and collision detection.

- **Web Application for EMS-based Role Assignment – University of Wollongong, [2025]:**

  - In a team of 4 members, I helped develop a web application designed to streamline event creation, ticketing and attendee coordination.
  - The final end-product was an Event Management System that lets organizers publish events, manage registrations and payments, and send real-time updates to participants—optimizing workflows and boosting engagement.
  - Utilized Flask and **SQLAlchemy** for **RESTful API** development, integrated Stripe for secure payment processing, and built a responsive UI with Bootstrap and vanilla JavaScript.

- **Data Science & AI Applications:** I trained anomaly-detection models, exposed RESTful prediction endpoints, and processed transaction data using **Node.js** and **TypeScript** in the

AiMiFraudDetectionSystem. Additionally, I used **D3.js** to create QueryVisualizer for interactive charts and NeuralIncline-3D to prototype 3D neural-network visualisations using **WebGL**.

- **DevOps & Cloud Solutions:** I used **GitHub** Actions to automate **CI/CD** pipelines while writing CloudDevopsMigrationTool and **DevOps**-Dashboard in TypeScript. Through an end-to-end workflow, my **AWS** Cloud Resume project provisioned **AWS S3**, **CloudFront**, DynamoDB, and Lambda, delivering updates with zero downtime.

LANGUAGES

Proficient in English with excellent verbal and written communication skills