

# AALOK MANDAL

PERSONAL  
PORTFOLIO WEBSITE

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

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 full-stack developer with strong frontend development expertise in HTML, CSS, JavaScript, and responsive UI/UX design. Experienced in building and deploying web applications, including my personal portfolio site, and developing RESTful APIs using Python (Flask, Django).

Creative and detail-oriented Web Designer with hands-on experience designing and building responsive, conversion-focused websites across Shopify, WordPress, and custom front-end stacks. Skilled in wireframing, UX flows, mobile-first design, and collaborating closely with developers to deliver clean, build-ready interfaces. Strong communication skills, a fast learner, and passionate about crafting intuitive digital experiences that balance aesthetics with real-world technical constraints.

EDUCATION

<b>Bachelor of Computer Science</b> <b>University of Wollongong</b> , Wollongong, NSW Double Major: Software Engineering & Artificial Intelligence & Big Data	<b>[2024 – Present]</b>
<b>Diploma of Information Technology</b> <b>UOW College</b> , Wollongong, NSW Equivalent to Year 1 Computer Science, credited toward SENG & AIBD majors	<b>[2023 – 2024]</b>
<b>Certificate IV in Information Technology</b> <b>International Institute of Education</b> , Sydney, NSW Foundation in core IT skills; credited toward UOW Diploma of IT	<b>[2022 – 2023]</b>

TECHNICAL  
SKILLS

- |                    |                   |                       |
|--------------------|-------------------|-----------------------|
| • Python           | • SQL             | • Cloud deployment    |
| • React            | • JavaScript      | • Figma               |
| • Next.js          | • AWS Cloud tools | • GitHub              |
| • Machine Learning | • HTML/CSS        | • RESTful API         |
| • WordPress & Wix  | • Web & UI Design | • Agile collaboration |

SOFT SKILLS

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|---------------------|-------------------|----------------------|
| • Leadership        | • Teamwork        | • Detail Orientation |
| • Communication     | • Time Management | • Adaptability       |
| • Quality Assurance | • Organization    | • Problem-Solving    |

WORK HISTORY

<b>Software Developer Intern</b> <b>Realta Logic</b> , Sydney, NSW	<b>[07/2024 – 11/2024]</b>
<ul style="list-style-type: none"><li>Developed and refactored Python modules for essential application features in collaboration with a senior software engineer.</li><li>Participated in daily stand-ups, planning sessions, and retrospectives while working in Agile sprints with a multi-developer team.</li><li>Authored and maintained unit and integration tests using pytest, boosting code reliability and streamlining the CI/CD pipeline.</li></ul>	

- Conducted code reviews and managed feature branches in Git, resolving merge conflicts and ensuring adherence to coding standards.

## Freelance Web Designer

[08/2024 – Present]

Self-Employed, Wollongong, NSW

- Design and build custom websites for small businesses, startups, and service-based clients using Shopify, WordPress, Wix, and custom front-end stacks.
- Create wireframes, page flows, and responsive layouts with a strong mobile-first approach, ensuring clean UX and conversion-focused design.
- Collaborate directly with clients to understand goals, brand identity, and user needs, translating requirements into visually appealing, build-ready designs.
- Develop and refine website structures, navigation systems, and content layouts to improve usability and customer engagement.
- Perform light theme editing, styling updates, and content management within Shopify and WordPress, ensuring smooth handover and easy maintenance.
- Optimise websites for performance, accessibility, and SEO fundamentals, resulting in faster load times and improved user experience.
- Manage multiple projects simultaneously, from initial concept to final delivery, including scoping, timelines, revisions, and client communication.
- Successfully delivered 2 websites, including, service-based business sites, and interactive portfolio experiences.

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## KNOWLEDGE & PROJECTS

- **Web Development:** Developed and maintained 3+ responsive websites, including CleanPro, SoftwareEngineerWebsite, and MyWebsite3D, using HTML, CSS, and JavaScript; integrated CMS APIs and optimized cross-browser layouts to deliver seamless, user-centric experiences.
- **Web Application for EMS-based Role Assignment** *University of Wollongong, 2025*  
**GitHub:** <https://github.com/akm164/EMSPProject>
  - Collaborated in a 3-member team via a centralized Git repository to develop a distinction graded Event Management System, streamlining event creation, ticketing, and attendee coordination.
  - Engineered RESTful APIs with Flask and SQLAlchemy to manage event publishing, registrations, and payment workflows.
  - Integrated Stripe for secure payment processing and implemented real-time update notifications to enhance organizer participant communication.
  - Crafted a responsive frontend using Bootstrap and vanilla JavaScript, ensuring cross browser compatibility and an intuitive user experience.
- **AI-Powered E-commerce Website** (GitHub: [GitHub - akm164/AI-Powered-E-commerce](https://github.com/akm164/AI-Powered-E-commerce))

I designed and deployed an end-to-end AI-driven e-commerce platform where I trained and fine-tuned anomaly-detection models to flag fraudulent transactions in real time, built RESTful prediction APIs and data-processing pipelines using Node.js and TypeScript to integrate fraud checks directly into the checkout flow, and crafted interactive D3.js dashboards alongside WebGL-powered 3D neural network visualizations to give stakeholders deep insights into sales trends and model decision pathways.
- **DevOps & Cloud Solutions:** DevOps & Cloud Solutions: Collaborating with a University of Wollongong professor and a colleague on the AWS Cloud Resume project, I automate CI/CD pipelines using GitHub Actions and implement TypeScript-driven Infrastructure as code to provision S3, CloudFront, DynamoDB, and Lambda for zero-downtime deployments.

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References will be provided upon request.