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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 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.

EDUCATION

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

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

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

TECHNICAL SKILLS

- **Python**
- **React**
- **Next.js**
- **Machine Learning**
- **SQL**
- **JavaScript**
- **AWS Cloud tools**
- **HTML/CSS**
- **Cloud deployment**
- **Django**
- **GitHub**
- **RESTful API**

SOFT SKILLS

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

WORK HISTORY

Software Developer Intern   **[07/2024 – 11/2024]**
Realta Logic, Sydney, NSW
- 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 – 02/2025]**
Illawarra Yacht Club, Wollongong, NSW

- Coordinated with the head chef and kitchen brigade to synchronize prep, cooking, and plating, ensuring seamless service during high volume dinner shifts.
- Maintained composure under peak service pressures by promptly troubleshooting equipment malfunctions and reallocating staff to critical stations.
- Managed multiple prep lines concurrently, consistently delivering dishes to the pass within designated timeframes.
- Developed and implemented a streamlined mise en place system, improving prep efficiency and reducing ingredient waste.
- Liaised with front-of-house teams to accurately communicate special dietary requests and allergy information, minimizing order errors.

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/EMSProject
  - 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)
  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.

References will be provided upon request.