

MUHAMMAD OBIN MANDALIKA SUDIBYO

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EXPERIENCE

Flying Fish Technologies

Nov 2025 - Feb 2026

Applied AI / ML Engineering Intern

- Partnered with FFT engineers and marine-biology researchers to deliver an AI-assisted annotation tool for underwater ecological surveys, processing transect imagery at up to 30 frames/sec and reducing researcher labelling time by an estimated 20–30% on surveys of up to 50 km/day.
- Worked directly with marine biologists and FFT's technical team to translate domain requirements into the data model, and iterated the review workflow based on their feedback.
- Designed the Postgres schema and migrations storing image metadata, model predictions, and human-validated labels.

Dimensi Kreasi Nusantara

Sep 2024 - Dec 2024

Software Engineering Intern

- Developed an e-fishery mobile application in optimizing catfish farming productivity and efficiency.
- Contributed to the development of front-end and back-end systems with key features tailored to the integration between UI/UX design and user database.
- Applied agile methodologies throughout the project lifecycle, including sprint planning, code reviews, and version control with Git.

PROJECTS

Omarine | AI-Assisted Underwater Image Annotation Tool

- Engineered a backend data pipeline processing imagery at **30 frames/sec**; stored transect frames in Google Cloud Storage (GCS) buckets on GCP, enabling scalable and reliable access to large-scale survey datasets.
- Designed semantic search and cross-frame object grouping so researchers can query datasets by visual concept and validate model outputs instead of labelling frame-by-frame.
- Built a model-evaluation dashboard visualising detection counts, confidence-score distributions, and mask-area ratios across the dataset, giving the team a single view to monitor model quality and prioritise frames needing human review.

Annota | AI-Assisted Research Management Web App

- Built a full-stack research workspace (projects, PDFs, links, citations, comparison tables, search) end-to-end, integrating OpenAI API annotations from extracted PDF and web content.
- Implemented a TipTap rich-text editor with citation chips, table editing, word counts, and sanitised HTML storage, maintaining high development standards across front-end and back-end layers.

UQonnect | Student Onboarding Platform

- Prototyped an onboarding and dashboard system for new UQ students; conducted user surveys and interviews to validate product-market fit and inform feature design.
- Integrated interest-based matching, guided icebreakers, community discovery, and privacy/anonymous-chat features.

SKILLS

Programming: Python, Java, JavaScript (Node.js), TypeScript, Kotlin, SQL, R, MATLAB, Go, Swift

Cloud Platforms: Google Cloud Platform (GCP) — Cloud Storage (GCS), AWS

Frameworks & Tools: Next.js, Django, React, TipTap, Git, SonarCloud, Figma, Vercel, RESTful APIs

Data Science & Machine Learning: Tableau, Pandas, NumPy, scikit-learn, TensorFlow, Matplotlib, Data Visualization, Statistical Modelling, Predictive Analytics

Database Management: MySQL, PostgreSQL, MongoDB, Firebase Realtime Database.

Other: Agile / Scrum, cross-functional collaboration, English (professional proficiency)

EDUCATION

University of Queensland GPA 6.0 / 7.0

Feb 2025 - Jul 2026

Joint Degree – Data Science (Computer Science & Mathematics)

- UQ Global Connect Scholarship Recipient
- Related Coursework: Machine Learning, Statistical Modelling & Analysis, AI & Data Science, Advanced Database Systems, Web Information Systems, Design Computing Build, Statistical Learning.

Universitas Indonesia, Computer Science

Jul 2022 - Dec 2025

- Related Coursework: Software Engineering, Numerical Analysis, Human-Computer Interaction, Databases, Advanced Programming, Design & Analysis of Algorithms, Data Structures & Algorithms.