

Noe Chacko Jacob

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Education

The University of Sydney

Sydney, Australia

Bachelor of Engineering Honours (Software)

- **Awards:** Sydney Scholars India Scholarship (~100%), Sydney International Student Award, Dalyell Scholar
- **WAM:** 81

Experience

Technical Consultant

Sydney, NSW

The University of Sydney

Mar 2025 - Present

- Contracted as a technical consultant to reinvent the Faculty's Professional Engagement Program (PEP), author a comprehensive **SRS**, and streamline its end-to-end workflows.
- Building an **AI claim-marking service** that will remove **2,000+** manual review hours and save about **\$220,000** a year, while boosting scoring consistency across thousands of student submissions.
- Leading a phased migration of the PEP portal (**5,000+** users) from Sonia to Canvas—mapping data, writing integration APIs, and documenting rollout playbooks to deliver a cleaner, faster user experience.

Software Consulting Intern

Rydalmere, NSW

Jacaranda Flame Consulting

Nov 2024 - Feb 2025

- Scoped and authored a comprehensive **SRS** through close collaboration with product managers, engineers, designers, and healthcare SMEs; iterative reviews trimmed selection errors by **35 %** while meeting Nielsen heuristics and FDA usability standards.
- Delivered high-fidelity **UI/UX prototypes (Figma)** prototypes for a global pharmaceutical client, cutting clinical-app navigation time by **12 s** per task and boosting usability-test success rates.

Casual Academic

Darlington, NSW

The University of Sydney

July 2023 - July 2025

- Led **20+** labs / tutorials for ENGG2112, ELEC1601, ISYS2110 & COMP3520, guiding **1,800+** students through AI pipelines, OS internals and embedded systems; introduced a real-time leader-board and analytics dashboard that boosted task-completion rates and gave staff instant visibility on class progress.
- Resolved **500+** technical queries each semester via Ed forums and office hours, providing code-level reviews and root-cause analyses that lifted average project marks and cut repeat questions by half.

Projects

HawkEye: Lightweight Multi-UAV Re-ID Pipeline

[github.com](#) 

- Designed **SwiftTrackNet** (14-layer depthwise/Ghost CNN in *PyTorch*) and **LightMatchNet** view-fusion; INT8-TensorRT export (180kB) runs at **10 ms** on Jetson Nano. Integrated with **YOLOv11-Tiny** + **ByteTrack** in a multi-threaded C++/Python pipeline, achieving **97 % Top-1** on VeRi-776 while staying < 30 ms / frame and < 64 kB / s bandwidth.

Nutripal

[github.com](#) 

- Led the development of an AI nutrition assistant: crafted a cross-platform UI in **React Native**, authored scalable APIs in **Node.js** + **TypeScript**, and wired in **GPT-4 LLMs** for meal-plan generation, pantry validation, and live dietitian chat.

CuspAI

Oct 2024

- Co-created an academic planner: **Next.js** web portal and micro-service backend **Spring Boot**. Integrated **LLMs** for unit recommendations, **JWT** for secure auth, and **Google Calendar API** for auto-scheduling.

TKE Elevator App

Sept 2024

- Delivered an audit & payment platform for a MNC company: built the front-end in **Flutter**, ran a serverless backend on **Firebase** + **Cloudflare Functions**, added **Stripe** for secure billing, and used **Google ML OCR** to capture documents, cutting manual processing by 60 %.

Skills

Languages: Python, Java, SQL, C, JavaScript, AVR, TypeScript

Technologies: React Native, Next.js, Spring Boot, Django, Node.js, Docker, Kubernetes, Firebase, PostgreSQL, MongoDB, AWS, Selenium, Pytorch. Scikit-learn, Jira, Git, Figma