Edward Khuu

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Education

The University of Sydney Sydney, NSW
Bachelor of Engineering Honours (Software Engineering) *Feb 2023 – Nov 2026*
- WAM: Distinction

Technical Skills

Languages: Python, Java, C, JavaScript, SQL, HTML/CSS
Frameworks: Django, Django REST Framework, React, Flask, JUnit
AI / CV: PyTorch, OpenCV, scikit-learn, NumPy, pandas
Cloud / Tools: AWS EC2, S3, RDS, PostgreSQL, Git, Squish, Docker, Jenkins

Experience

Software Engineering Intern Mar 2026 – Present
Bayer *Sydney, Australia*
- Developing a Python-based automated testing framework using the Squish API to convert manual medical-device verification procedures into repeatable automated test cases.
- Built reusable wrappers that simulate human interaction with medical-device interfaces, including navigation, input, object detection, waiting and verification behaviour.
- Automated manual verification workflows to reduce human dependency and testing errors while improving test execution speed, consistency and repeatability.

Engineering Consultant Intern Dec 2025 – Feb 2026
Jacaranda Flame Consulting – Bayer Project *Sydney, Australia*
- Contributed to the initial development of automated verification workflows for Bayer medical-device systems within a multidisciplinary engineering team.
- Performed debugging and root-cause analysis of test failures before transitioning directly into a Software Engineering Internship with Bayer.

Projects

Overlap – Meeting Scheduling | *React, TypeScript* | Live Demo 2026
- Developed a meeting poll application that converts proposed times into participants' local time zones and ranks availability using preference-based tie-breaking.
- Implemented SQL persistence with Cloudflare D1, token-based organizer and participant editing, and automated tests; deployed the application on Cloudflare Workers.

Postly – Task Marketplace Platform | *Django REST Framework, React* | GitHub Aug 2025 – Nov 2025
- Built a full-stack task marketplace supporting task creation, browsing, bidding, bid acceptance, contracts, user reviews and administrative workflows.
- Designed REST APIs using Django REST Framework for authentication, user profiles, tasks, bidding, contracts, attachments and reviews.
- Implemented JWT authentication with access and refresh tokens, protected routes, user management and a React frontend integrated with the Django backend.

Cross-Stain Cell Segmentation | *Python, PyTorch, OpenCV, scikit-learn* 2026
- Developed a deep-learning pipeline for nuclei segmentation across H&E and IHC histopathology images, focusing on cross-stain model generalisation.
- Implemented Macenko, Reinhard and Vahadane stain-normalisation techniques alongside preprocessing and image-augmentation pipelines.
- Built modular PyTorch training and testing components with automated tests for key preprocessing and normalisation modules.