# Patrick Amadeus Irawan

 ${\cal S}$  patrickamadeus.github.io oxdot patrickamadeusirawan@gmail.com in  $\operatorname{LinkedIn}$ **?** Github

### Education

| Ph.D. in Natural Language Processing — $\mathbf{MBZUAI}$ - UAE · $Advisor:\ Alham\ Fikri\ Aji$  | Aug 2025 - 2029                      |
|---|--------------------------------------|
| Global Study Program — University of California, Davis · Specialization: Computational Cognitive Neuroscience, Tech Management  | Jul 2023 - Dec 2023                  |
| $\operatorname{B.Eng.}$ in Computer Science — $\operatorname{Institut}$ Teknologi Bandung (ITB) - Indonesia   | Aug 2020 - Oct 2024                  |
| Publications  |                                      |
| WorldCuisines: A Massive-Scale Benchmark for Multilingual and Multicultural VQA on Global Cuisines [Paper/Code] G. Winata*, F. Hudi*, P. Irawan*, D. Anugraha*, R. Putri*, et al.   | NAACL 2025 (Best Theme Paper $\P$ )  |
| ProxyLM: Predicting Language Model Performance on Multilingual Tasks via Proxy Models [Paper]  D. Anugraha, G. Winata, C. Li, <u>P. Irawan</u> , E. Lee   | NAACL 2025                           |
| Towards Efficient and Robust VQA-NLE Data Generation with Large Vision-Language Models [Paper] <u>P. Irawan</u> , G. Winata, S. Cahyawijaya, A. Purwarianti   | COLING 2025                          |
| Datasheets Aren't Enough: DataRubrics for Automated Quality Metrics and Accountability [Paper] G. Winata*, D. Anugraha*, E. Liu*, A. Aji*, S. Hung, A. Parashar, <u>P. Irawan</u> , et al.  | (under review) 2025                  |
| Leveraging IoT and Machine Learning for Efficient Rice Stock Monitoring and Prediction [Paper]  N. Sutisna, A. Nugroho, C. Jeffrey, P. Irawan*, et al.  | APSIPA ASC 2024                      |
| SEACrowd: A Multilingual Multimodal Data Hub and Benchmark Suite for Southeast Asian Languages [Paper] H. Lovenia*, R. Mahendra*, S. Akbar*, L. Miranda*, (10+ authors), P. Irawan, et al.  | EMNLP 2024                           |
| Achievement & Awards  |                                      |
| NAACL Best Theme Paper Award Winner BCG SEA Emeralds Case Competition Winner Indonesian International Student Mobility Awards @ UC Davis Awardee CSLeaders Full Education Tuition Scholarship Awardee DOMO Higher Education Case Competition Finalist | 2025<br>2024<br>2023<br>2022<br>2023 |

## Work Experience

Research Engineer SingaporeFeb 2025 - current

Singapore Management University

o Part of the Multimodal SEA-Cultured LLM research team provisioned by Prof. Chong-Wah Ngo

- o Leading a team of 3 users on implementing an end-to-end multimodal reasoning data consolidation pipeline (data collection & quality assurance)
- o Researching on method to improve multimodal LLMs' ability to perform static segmentation and video moment segmentation on cultural videos or masked images.

Software Engineer

Germany, Remote
Nov 2024 - Jul 2025

 $IT\ Bauschmiede$ 

• Developed project management system consisting of real-time scheduling, invoicing, and geolocation features for multiple enterprise clients

 $\circ$  Refactored database migration and core controller architecture, reducing processing time by 20% and enhancing system reliability

Data Scientist Intern

Jakarta, ID

Supertype

Jan - Jul 2023

 $\circ$  Designed & implemented topic extraction pipeline using sentence-transformers, improving processing speed by 100% and reducing redundancy by 33%

o Optimized Django REST + GCP backend via code refactoring, ensuring 95%+ uptime and increased throughput

## Software Engineer Intern

Jakarta, ID

Blibli

Jun - Dec 2022

o Expanded 4 commerce checkout services coverage via BDD, producing 150+ novel or improved QA cases

 $\circ~$  Optimized Kafka pipeline by implementing distributed programming, boosting test efficiency by 2x

#### Software Engineer Intern

Jakarta, ID

Ruangguru

Jan - Apr 2022

 Developed a coding judge software for 1k+ users using Golang, whose smart scheduling & reminder features boosted task completion rate by 15% compared to legacy tool

o Eliminated code smell and enforced updated design pattern via Golang semantics & templates

#### Technical Skills

Competent: Python, PyTorch, JavaScript, SQL, GCP, Huggingface, Unix

Familiar: Golang, CUDA, Tensorflow, Java, TypeScript, FastAPI, Django, REST, Flask, Gin, Echo, BigQuery,

Looker Studio, Tableau, PowerBI