Patrick Amadeus Irawan

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Ph.D. in Natural Language Processing — MBZUAI - UAE · Multimodal alignment, interpretability, reasoning; Multicultural vision-language · Advisor: Alham Fikri Aji	Aug 2025 - current Jul 2023 - Dec 2023
Global Study Program — University of California, Davis · Specialization: Computational Cognitive Neuroscience, Tech Management	
$\operatorname{B.Eng.}$ in Computer Science — 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 \ref{eqn})
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] P. Irawan, 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, P. Irawan, et al.	(under review) 2025
Leveraging IoT and Machine Learning for Efficient Rice Stock Monitoring and Prediction [Paper] N. Sutisna, A. Nugroho, C. Jeffrey, <u>P. Irawan</u> *, 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 DOMO Higher Education Case Competition Finalist CSLeaders Full Education Scholarship Awardee Gemastik XV Data Mining Division Finalist	2025 2024 2023 2023 2022 2022

Work Experience

Research Engineer Singapore

Singapore Management University

Feb 2025 - current

- o Part of SEA Multimodal LLM team, led by Chong-Wah NGO
- Leading a sub-unit of 2 researchers on implementing a multimodal reasoning data consolidation pipeline (data collection & quality assurance)
- Researching methods to improve multimodal LLMs' ability to perform multiclass object segmentation and video moment segmentation on cultural videos or masked images.

Software Engineer

Germany, Remote

 $IT\ Bauschmiede$

Nov 2024 - Jul 2025

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

- Designed & implemented topic extraction pipeline in conjunction with sentiment & semantic analysis, improving processing speed by 100% and reducing extracted topics' redundancy & inaccuracies 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
- o 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