


Patrick Amadeus Irawan

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 Personal Site  LinkedIn  Github

Education

Ph.D. in Natural Language Processing — MBZUAI - UAE	Aug 2025 - current
· Advisor: Alham Fikri Aji	
· Multimodal alignment; Modality imbalanced learning; Multimodal Interpretability; Unified multimodal models; Multimodal domain-specific benchmark	
Global Study Program — University of California, Davis	Jul 2023 - Dec 2023
· Computational Cognitive Neuroscience, Tech Management	
B.Eng. in Computer Science — Institut Teknologi Bandung - Indonesia	Aug 2020 - Oct 2024
· VQA synthetic data generation; VQA explainability and reasoning	

Publications

Seeing Culture: A Benchmark for Visual Reasoning and Grounding [Paper/Code]	EMNLP 2025
<i>B. Satar, Z. Ma, P. Irawan, W. Mulyawan, J. Jiang, E. Lim, C.-W. Ngo</i>	
WorldCuisines: A Massive-Scale Benchmark for Multilingual and Multicultural VQA on Global Cuisines [Paper/Code]	NAACL 2025 (Best Theme Paper 🏆)
<i>G. Winata*, F. Hudi*, P. Irawan*, D. Anugraha*, R. Putri*, (20+ authors), et al.</i>	
ProxyLM: Predicting Language Model Performance on Multilingual Tasks via Proxy Models [Paper]	NAACL 2025
<i>D. Anugraha, G. Winata, C. Li, P. Irawan, E. Lee</i>	
Towards Efficient and Robust VQA-NLE Data Generation with Large Vision-Language Models [Paper]	COLING 2025
<i>P. Irawan, G. Winata, S. Cahyawijaya, A. Purwarianti</i>	
Entropy2Vec: Crosslingual Language Modeling Entropy as End-to-End Learnable Language Representations [Paper]	MRL @ EMNLP 2025
<i>P. Irawan*, R. Diandaru*, B. Jagad*, R. Suchrady*, A. F. Aji, G. Winata, F. Koto, S. Cahyawijaya*</i>	
Datasheets Aren't Enough: DataRubrics for Automated Quality Metrics and Accountability [Paper]	Preprint 2025
<i>G. Winata*, D. Anugraha*, E. Liu*, A. Aji*, S. Hung, A. Parashar, P. Irawan, et al.</i>	
Leveraging IoT and Machine Learning for Efficient Rice Stock Monitoring and Prediction [Paper]	APSIPA ASC 2024
<i>N. Sutisna, A. Nugroho, C. Jeffrey, P. Irawan, et al.</i>	
SEACrowd: A Multilingual Multimodal Data Hub and Benchmark Suite for Southeast Asian Languages [Paper]	EMNLP 2024
<i>H. Lovenia*, R. Mahendra*, S. Akbar*, L. Miranda*, (10+ authors), P. Irawan, et al.</i>	

Achievement & Awards

OpenAI x MBZUAI Micro Grant Award Grantee	2025
NAACL Best Theme Paper Award Winner	2025
BCG SEA Emeralds Case Competition Winner	2024
Indonesian International Student Mobility Awards @ UC Davis Awardee	2023
DOMO Higher Education Case Competition Finalist	2023
CSLeaders Full Education Scholarship Awardee	2022
Gemastik XV Data Mining Division Finalist	2022

Work Experience

Research Engineer

Singapore Management University

Singapore
Feb 2025 – Sep 2025

- 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

IT Bauschmiede

Germany, Remote
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

Supertype

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

Software Engineer Intern

Blibli

Jakarta, ID
Jun – Dec 2022

- Expanded 4 commerce checkout services coverage via BDD, producing 150+ novel or improved QA cases
- Optimized Kafka pipeline by implementing distributed programming, boosting test efficiency by 2x

Software Engineer Intern

Ruangguru

Jakarta, ID
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
- Eliminated code smell and enforced updated design pattern via Golang semantics & templates

Technical Skills

Competent & Relevant: Python, OpenCV, PyTorch, SQL, GCP, Huggingface API, Unix, Bash, Slurm

Familiar: Golang, CUDA, Tensorflow, Java, TypeScript, FastAPI, Django, REST, Flask, Gin, Echo, BigQuery, Looker Studio, Tableau, PowerBI, Triton, Tensorflow