

Joanito Agili Lopo

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EDUCATION

- Universitas Gadjah Mada** Yogyakarta
Master of Computer Science in Artificial Intelligence, NLP. GPA 4.0
July 2025
Research interest for master's thesis: Multilingual and Low-Resource NLP
Relevant Coursework: Advanced Natural Language Processing, Generative Artificial Intelligence, Advanced Deep Learning, Pattern Recognition and Analysis, Data Science and Analytics, Machine Learning
- Universitas Kristen Satya Wacana** Salatiga
Bachelor of Information System, Machine Learning. GPA 3.95
June 2023
Research interest for undergrad thesis: Data Imbalanced
Relevant Coursework: Discrete Mathematics, Statistics, Mathematical Modelling, Oracle Database, Python Programming, Machine Vision, and Pattern Recognition

PUBLICATIONS

- Normalization and Deterministic Parsing for Formal Reasoning in LLMs** March 2026
Muhamad et al. (2026). ITLC at SemEval-2026 Task 11: Normalization and Deterministic Parsing for Formal Reasoning in LLMs. <https://doi.org/10.48550/arXiv.2603.02676>.
- Language Surgery in Multilingual Large Language Models** November 2025
Lopo et al. (2025). Language Surgery in Multilingual Large Language Models. 5th Workshop on Multilingual Representation Learning (MRL 2025). <https://doi.org/10.18653/v1/2025.mrl-main.30>.
- Reconstructing Autoencoder-like Multilayer Perceptron Architecture for Feature-Preserving Pooling in CNNs** September 2025
Lopo et al. (2025). Reconstructing Autoencoder-like Multilayer Perceptron Architecture for Feature-Preserving Pooling in CNNs. 1st International Conference on Artificial Intelligence Technology (ICoAIT 2025). <https://doi.org/10.1109/ICoAIT67446.2025.11309005>.
- CIKMar: A Dual-Encoder Approach to Prompt-Based Reranking in Educational Dialogue Systems** December 2024
Lopo et al. (2024). CIKMar: A Dual-Encoder Approach to Prompt-Based Reranking in Educational Dialogue Systems. 38th Pacific Asia Conference on Language, Information and Computation. <https://aclanthology.org/2024.paclac-1.56/>.
- SEACrowd: A Multilingual Multimodal Data Hub and Benchmark Suite for Southeast Asian Languages** November 2024
Lovenia et al. (2024). SEACrowd: A Multilingual Multimodal Data Hub and Benchmark Suite for Southeast Asian Languages. 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP 2024). <https://doi.org/10.18653/v1/2024.emnlp-main.296>.
- Constructing and Expanding Low-Resource and Underrepresented Parallel Datasets for Indonesian Local Languages** April 2024
Lopo, J., & Tanone, R. (2024). Constructing and Expanding Low-Resource and

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Underrepresented Parallel Datasets for Indonesian Local Languages. Arxiv. <https://doi.org/10.48550/arXiv.2404.01009>.

Enhancing Multi-Output Time Series Forecasting with Encoder-Decoder Networks October 2023

Hartomo, K. D., Lopo, J. A., & Purnomo, H. D. (2023). Enhancing Multi-Output Time Series Forecasting with Encoder-Decoder Networks. Journal of Information Systems Engineering and Business Intelligence, 9(2), 195–213. <https://doi.org/10.20473/jisebi.9.2.195-213>.

Evaluating Sampling Techniques for Healthcare Insurance Fraud Detection in Imbalanced Dataset June 2023

Lopo, J., & Hartomo, K. (2023). Evaluating Sampling Techniques for Healthcare Insurance Fraud Detection in Imbalanced Dataset. Jurnal Ilmiah Teknik Elektro Komputer Dan Informatika, 9(2), 223-238. <https://doi.org/10.26555/jiteki.v9i2.25929>.

TECHNICAL SKILLS & PROJECTS

Programming: SQL, Python, Go (Beginner), C++ (Beginner)

ML Framework: PyTorch, Tensorflow, Transformer, Scikit-learn

Data Visualization: Tableau, Power BI, Pandas, Seaborn

Language Certification: TOEFL ITP (score: 540)

Bhinneka Korpus October 2023

Conducted a manual curating corpus and linguistic annotations project, aiming to collect a parallel corpus in Indonesia regional language to enhance the available natural language processing resources for language translation task. Trained the available corpus employing statistical machine translation models and developed a model playground which accessible via Streamlit website <https://bhinneka-app.streamlit.app/>

Sentiment Analysis August 2023

Evaluated sentiment analysis model on Instagram comment dataset by employing four machine learning algorithms: Linear Regression, Logistic Regression, Naïve Bayes, and SVM. Summarized the model documentation and generated in-depth analysis of the model behavior.

AM 606 Final Project September 2022

Developed a command-line interface (CLI) application using Go programming language. Generated comprehensive system documentation and the procedure required for running the program.

EE 748 Final Project March 2022

Optimized T5 model specifically for abstractive text summarization by fine-tuning it using Liputan6 Indonesia news dataset to generate concise and accurate summaries from lengthy news articles.

Customer Segmentation October 2021

Implemented customer segmentation using clustering techniques to categorize and analyze customer behavior patterns within a marketing campaign dataset. Created the comprehensive model documentation and in-depth analysis of the model behavior.

EXPERIENCES

Joanito Agili Lopo

Computer Lab Assistant UGM

Supported students and staff in computer lab environment by troubleshooting technical issues, assisting with programming assignments, and maintaining lab systems. In addition, provide guidance on C++ coding, debugging, and project development while ensuring lab equipment and software are in proper working condition.

Yogyakarta
September 2024 –
December 2023

Directorate of Research and Community Service UKSW Research Intern

Designed and implemented machine learning algorithms across diverse use cases, including Parkinson's disease detection and prediction, fraud detection, multi-output time series forecasting, and landslide prediction.

Salatiga, Jawa Tengah
January 2023 – June 2023

PT Inovasi Informatika Indonesia Software Developer Intern

Joined the R&D division involved in developing a Command-Line Interface (CLI) application using Go Programming Language, seamlessly integrated into the i3gis DevSecOps platform. Organized the application's development and production phases, using Agile project management tools for efficient organization and execution.

Jakarta
July 2022 – January 2023

Kopernik Enumerator

Engaged in conducting interviews with expectant mother and mothers with children under two years, focusing on the topic of stunting. Facilitated Focus Group Discussions (FGDs) involving mother and community leaders and arranged interviews with relevant public health offices.

Soe, NTT
July 2021 – August 2021

CONFERENCE PRESENTATION

The 1st International Conference on Artificial Intelligence Technology Paper Presentation

Presented paper during the 1st International Conference on Artificial Intelligence Technology, specifically under the title: "Reconstructing Autoencoder-like Multilayer Perceptron Architecture for Feature-Preserving Pooling in CNNs".

Yogyakarta
September 2025

The 38th Pacific Asia Conference on Language Information and Computation Paper Presentation

Presented paper during the 38th Pacific Asia Conference on Language Information and Computation, specifically under the title: "CIKMar: A Dual-Encoder Approach to Prompt-Based Reranking in Educational Dialogue Systems".

Tokyo
December 2024

The 12th Indonesian Language Congress Selected Presenter

Presented paper during the 12th Indonesian Language Congress, specifically under the sub-theme: "Strategies on the Utilization of Information Technology in Preservation of Local Languages and Literature".

Jakarta
October 2023

AWARDS & HONORS

Best Paper Award in 1st International Conference on Artificial Intelligence Technology Top 16 Finalist of Orbit Habibie Techfest Awardee of Adaro Scholarship

September 2025
December 2021
September 2021 –
September 2023

LEADERSHIP & ACTIVITIES

UKSW Information System Festival

Salatiga, Jawa Tengah

Joanito Agili Lopo

Head of Division / Board Member

June 2021 – August 2021

Coordinated the committee responsible for the Information System Festival event, managing the coordination and invitations extended to the CEO of an Indonesian E-Commerce company and a distinguished business advisor for the participation in the events.

Student Association of Information System

Salatiga, Jawa Tengah

Head of Division / Board Member

June 2021 – December
2021

Lead program division to developing programs related to the information system major. Organized extensive research and collaborative efforts to curate diverse events. Created workshop for data visualization using Tableau, academic seminars, and a Business Proposal contest.