LHUQITA FAZRY

Deep Learning Researcher and Instructor

@ lhuqita.fazry@gmail.com   📞 +62 8787-633-5618   in lhuqita-fazry   🌐 lhfazry.github.io   ⭕ lhfazry

✉ Green Tapos D3, Tapos, Depok, West Java, Indonesia

RESEARCH INTEREST

Passionate about leveraging deep learning for solving real-world problems in image understanding and human-AI collaboration. My recent work explores change detection in remote sensing and diffusion models for generative tasks. I aim to pursue impactful research at the intersection of vision, language, and intelligent systems.

PUBLICATIONS

Improving Remote Sensing Change Detection Via Locality Induction on Feed-forward Vision Transformer
L. Fazry, M. M. L. Ramadhan and W. Jatmiko

📖 Jurnal Ilmu Komputer dan Informasi (JIKI), 2024
📍 DOI: 10.21609/jiki.v17i1.1188

Change Detection of High-Resolution Remote Sensing Images Through Adaptive Focal Modulation on Hierarchical Feature Maps
L. Fazry, M. M. L. Ramadhan and W. Jatmiko

📖 IEEE Access, 2023   📍 DOI: 10.1109/ACCESS.2023.3292531

Hierarchical Vision Transformers for Cardiac Ejection Fraction Estimation
L. Fazry, M. M. L. Ramadhan and W. Jatmiko

📖 7th International Workshop on Big Data and Information Security (IWBIS), 2022
📍 DOI: 10.1109/IWBIS56557.2022.9924664

A Split-then-Join Approach to Abstractive Summarization for Very Long Documents in a Low Resource Setting
Lhuqita Fazry

📖 arXiv preprint, 2025   📍 DOI: 10.48550/arXiv.2505.06862

Unsupervised Raindrop Removal from a Single Image using Conditional Diffusion Models
Lhuqita Fazry and Valentino Vito

📖 arXiv preprint, 2025   📍 DOI: 10.48550/arXiv.2505.08190

On the Complexity Analysis on Hierarchical-based Reduction of Multiclass Classification
Lhuqita Fazry and Lim Yohanes Stefanus

📖 Technical Report, 2023   📍 Paper

Minimax Training in Linear Sinkhorn GAN with Spectral Bound Regularization
Lhuqita Fazry

📖 Technical Report, 2022   📍 Paper

HifiDiff: Two Stream Diffusion Models for High Fidelity Speech Generation of Unseen Languages
Lhuqita Fazry, Kurniawati Azizah, Dipta Tanaya, Ayu Purwarianti, Dessi Lestari, Sakriani Sakti

📖 Technical Report, 2023   📍 Paper

EDUCATION

Master in Computer Science
University of Indonesia 2021-2023

⭐ CGPA: **3.93**/4.00

Thesis: *Urban Change Detection from Satellite Imagery using Wavelet Transformer*

Bachelor in Mathematics
University of Indonesia 2004-2008

Thesis: *Fractal Image Compression using Genetic Algorithm*

AWARDS

🏆 **Best Student Paper**
7th International Workshop on Big Data and Information Security (IWBIS), 2022

🏆 **Best Session Presenter**
7th International Workshop on Big Data and Information Security (IWBIS), 2022

🏛 **Cum Laude Graduate, Master of Computer Science**
University of Indonesia, 2023. Awarded for academic excellence with GPA 3.93/4.00

TECHNICAL SKILLS

- **Programming**: Python, Java, JavaScript, PHP, C/C++, Go, Kotlin.
- **AI/ML Frameworks**: TensorFlow, PyTorch, Keras, MMCV.
- **Web & Mobile**: Laravel, Flutter, Android (Java/Kotlin).
- **Tools**: Git, Docker, Google Cloud, Firebase, MySQL, PostgreSQL.

LANGUAGES

English ●●●●○
Indonesia ●●●●●
Arabic ●●○○○

RESEARCH EXPERIENCE

Intelligent Robots and Systems (IRoS) Lab   Faculty of Computer Science, Universitas Indonesia
📅 2021 - 2023   👤 Research Student

Supervised by Prof. Dr.Eng. Wisnu Jatmiko, S.T., M.Kom.
- Conducted research on Urban Change Detection from Satellite Imagery using Wavelet Transformer.
- Developed a deep learning framework for detecting urban spatial changes in remote sensing imagery.

Human-AI Communication, Co-Learning, & Collaborative Intelligence Research Lab   Japan Advanced Institute of Science and Technology (JAIST), Japan
📅 2023   👤 Research Intern – Sakura Science Exchange Program

Supervised by Prof. Sakriani Sakti
- Conducted research on HiFiDiff: Two-Stream Diffusion Models for High-Fidelity Speech Generation of Unseen Languages.
- Explored generative modeling techniques for multilingual speech synthesis using diffusion-based architectures.

Centre for Computational Mathematics Studies   Gunadarma University
📅 2019-2023   👤 Research Assistant

Supervised by Dr. Tri Handhika, S.Si., M.Si., M.T., M.E.
- Developed an Android-Based Intelligent Learning System for Automated Travel Planning.
- Focused on price optimization and itinerary scheduling using computational and mathematical approaches.

TALKS & TRAINING WORKSHOPS

Deep Learning   PT. Astra Otoparts Winteq
📅 Feb 2025   📍 Karawang, West Java, Indonesia

Trained participants to build deep learning model for regression and classification tasks using Tensorflow. This training was held for IT team of PT. Astra Otoparts Winteq, Karawang, West Java. The training was conducted for 4 days.

Guest Lecturer on Practical Data Science   SMK Kesuma Bangsa 2
📅 Feb 2025   📍 Depok, West Java, Indonesia

Demonstrated license plate recognition using OpenCV and YOLO. This talk is held for the final grade students of SMK Kesuma Bangsa 2 (High Vocational School).

Face Verification with ArcFace Workshop   Rumah Coding
📅 Dec 2024   📍 Depok, West Java, Indonesia

Built a face verification system using ArcFace. This workshop was held for participants of Rumah Coding, Depok.

Intermediate Data Science   PT. Pertamina Hulu Rokan
📅 Dec 2024   📍 Jakarta, Indonesia

Taught data scraping, preprocessing, visualization, and ML modeling with Python. This training was held for employees of PT. Pertamina Hulu Rokan, Jakarta. The training was conducted for 3 days.

Guest Lecturer on Deep Neural Networks   Universitas Gunadarma
📅 Nov 2024   📍 Depok, West Java, Indonesia

Provided an introduction to neural networks and deep learning. This talk was held for students of Universitas Gunadarma, Depok.

Similarity Search with Vector Embedding   DJPP (Direktorat Jenderal Peraturan Perundangan), Ministry of Law and Human Rights of the Republic of Indonesia
📅 Oct 2024   📍 Jakarta, Indonesia

Presented fundamentals of similarity search using vector embeddings. This talk was held for employees of DJPP (Direktorat Jenderal Peraturan Perundangan), Ministry of Law and Human Rights of the Republic of Indonesia, Jakarta.

Generative AI for Software Development   Ministry of Finance of the Republic of Indonesia

📅 Aug 2024   📍 Jakarta, Indonesia

Built a chatbot using fine-tuned LLMs (Gemma, LLaMA) on domain-specific data especially for software development. This training was held for employees of Ministry of Finance of the Republic of Indonesia, Jakarta. The training was conducted for 3 days.

PROFESSIONAL EXPERIENCE

IT Trainer & Consultant
Rumah Coding

📅 2023 – 2025   📍 Depok, West Java, Indonesia

Conducted workshops and trainings on Generative AI, Deep Learning, REST API, Flutter Development

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Chief Executive Officer (CEO)
PT. Sahoot Indonesia Pratama

📅 2017 – 2021   📍 Depok, West Java, Indonesia

- Led a tech education startup offering coding and IT training programs
- Managed curriculum development for topics in Python, Mobile Development, Data Science, and AI

Chief Executive Officer (CTO)
PT. Blastocode Global Media

📅 2014 – 2017   📍 Bekasi, Wes Java, Indonesia

Design and develop mobile educational games using unity technology

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Web and Mobile Developer
PT. Kaisan Pratama Indonesia

📅 2011 – 2014   📍 Jakarta, Indonesia

Built and maintained web & mobile applications using modern tech stacks

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Java Developer
PT. Sarana Sistem Sentosa

📅 2010 – 2011   📍 Jakarta, Indonesia

Designed scalable software systems and led development teams

Backend Developer (PHP)
PT. Cometa Mobile

📅 2009 – 2010   📍 Jakarta, Indonesia

Develop and maintain backend service for content provider company.

REFERENCES

Prof. Dr.Eng. Wisnu Jatmiko, S.T., M.Kom.
@ wisnuj@cs.ui.ac.id
✉ Faculty of Computer Science, University of Indonesia.

Adila Alfa Krisnadhi, S.Kom., M.Sc., Ph.D.
@ adila@cs.ui.ac.id
✉ Faculty of Computer Science, University of Indonesia.

Drs. Lim Yohanes Stefanus, M.Math., Ph.D.
@ yohanes@cs.ui.ac.id
✉ Faculty of Computer Science, University of Indonesia.

Dr. Tri Handhika, S.Si, M.Si.
@ trihandika@staff.gunadarma.ac.id
✉ Computational Mathematics Study Center, Gunadarma University