



RIZAL KHOIRUL ANAM

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Pukou District, Nanjing City, Jiangsu Province, Mainland China

Computer Science student and Fullstack Web Developer with a strong international academic background in Indonesia and China, currently studying at Nanjing University of Information Science and Technology under a full scholarship. Experienced in modern web development technologies (Vue.js, React, Laravel), cloud computing (GCP, AWS), and backend systems. Skilled in Python-based AI applications, including deep learning and computer vision, with additional experience using MATLAB for image processing research. My research interests focus on the application of Large Language Models (LLMs), including prompt engineering and human-AI interaction. Notable projects include a food recognition system using Vision Transformers and an LLM-based recipe generation tool. Actively involved in intercultural collaboration, innovation competitions, and academic research. Now seeking opportunities to contribute to global R&D teams through research internships or graduate-level research engagements.

Education Level

Politeknik Negeri Jember 🇮🇩 - Jember, Indonesia

Aug 2021 - Aug 2024

Associate of Software Engineering, 3.86/4.00

- Kominfo Talent Scouting Academy: Completed an online Junior Mobile Programmer internship, specializing in Flutter for cross platform app development.
- Bangkit Academy: Engaged in an online Cloud Computing internship led by Google, Tokopedia, Gojek, and Traveloka, focusing on advanced cloud technologies.
- Academic Excellence: Graduated with cum laude honors, achieving a GPA of 3.86, demonstrating a high level of academic performance and dedication.

Changzhou Institute of Mechatronic Technology - Changzhou, China

Oct 2023 - Jul 2024

Associate of Software Engineering, 4.37/5.00

- 3rd Place in "I Love Changzhou City" Video Competition
- Most Creative Multimedia Member, PPIT: Recognized as the most creative member of the Indonesian Students' Association in China (PPIT) for multimedia contributions, demonstrating innovative design and communication skills.
- Top 10 Best International Student upon Graduation at Changzhou Institute of Mechatronic Technology, China, recognized for outstanding academic achievement and performance.

Nanjing University of Information Science & Technology 🇨🇳 - Nanjing, China

Sep 2024 - Jul 2026 (Expected)

Bachelor of Computer Science, 3.90/4.00

- Awardee of Full Scholarship at Nanjing University of Information Science and Technology: Honored with a prestigious full scholarship for a Bachelor's degree, recognizing academic excellence and potential in the field of Computer Science.
- 1st Place, Python Programming Competition, Nanjing University of Information Science and Technology (NUIST), 2024 Demonstrated advanced programming skills and problem-solving in a competitive setting.
- 2nd Place, Belt and Road Brand Planning Competition – National Finals (华留学生组全国总决赛 二等奖), 2025
- Shortlisted to represent China in the upcoming Global Brand Planning Competition in Singapore. Project: “Tahu Balap: Introducing Indonesian Flavors to Chinese Consumers through Culinary Innovation.”
- Participant, AI & Smart Construction Summer Program, Nanjing Tech University, China, 2025 Focused on AI-driven innovation and intelligent construction with academic and practical sessions.
- Participant, Cultural Heritage Tourism & Communication Summer Program, Sun Yat-sen University, China, 2025 Engaged in heritage tourism, protection, and communication through lectures, workshops, and fieldwork.

Publications & Research Activity

Prompt Engineering and the Effectiveness of Large Language Models in Enhancing Human Productivity

<https://doi.org/10.48550/arXiv.2507.18638>

- Investigating how prompting strategies influence user productivity when interacting with AI tools like ChatGPT, Gemini, and DeepSeek.
- Conducted a survey with 243 respondents to analyze usage patterns and prompt styles.
- Focused on real-world applications of LLMs in academic, creative, and professional tasks.

Evaluating Gemini LLM in Food Image-Based Recipe and Nutrition Description with EfficientNet-B4 Visual Backbone

<https://doi.org/10.48550/arXiv.2511.08215>

- Built an AI system that classifies food images using a Vision Transformer model and provides contextual recipes using LLM (Gemini API).
- Developed with Python, FastAPI backend, and Vue.js frontend.

AI System for Animal Disease Diagnosis and Treatment Recommendation

- Developed an image recognition model to accurately identify signs of common diseases in animals from visual data.
- Integrated a Large Language Model (LLM) to process the diagnosis and automatically generate a detailed report, including information on disease handling, initial treatment, and care recommendations.
- Successfully created a proof-of-concept that demonstrates an end-to-end workflow from image analysis to actionable guidance.

Robustness and Imperceptibility Analysis of Hybrid Spatial-Frequency Domain Image Watermarking

<https://doi.org/10.48550/arXiv.2511.10245>

- Investigated the trade-off between imperceptibility (PSNR) and robustness (NC, BER) in image watermarking.
- Implemented and compared three methods: spatial (Least Significant Bit), frequency (Discrete Fourier Transform), and a novel hybrid (LSB+DFT) approach.
- Evaluated performance against common attacks (JPEG compression, Gaussian noise, salt-and-pepper noise) on standard datasets.
- Results showed LSB provides high imperceptibility but is fragile; DFT is robust but reduces visual quality; the proposed hybrid method optimally balances both high fidelity and superior resilience.

Technical Skills

- **Languages Skills:** English, Chinese (HSK 5), Bahasa Indonesia
- **Programming Languages:** JavaScript (Vue.js, React.js, Node.js, Express.js), PHP (Native, Laravel), Java (Backend, JSP), Python (TensorFlow, YOLO), MATLAB
- **Database:** MySQL, PostgreSQL, MongoDB, Firebase, SQLite