**Muhammad Ramdhan Hidayat**

Jakarta, Indonesia | +6281295813273 | ramdhan\_hidayat@outlook.com | linkedin.com/in/ramdhan-hidayat | Portfolio | Blog

**SUMMARY**

Junior AI Engineer specializing in Large Language Models (LLMs), with hands-on experience building AI agents using LangChain and OpenAI-compatible APIs. Proven ability to curate datasets, implement RAG systems, and develop production-ready chatbot applications with ethical safeguards. Passionate about prompt engineering and deploying scalable LLM solutions.

**TECHNICAL SKILLS**

**Languages:** Python, SQL, R, Clojure

**LLM Frameworks & Tools:** LangChain, OpenAI API, OpenRouter, Exa, Hugging Face Transformers, Streamlit, Ollama (exploring), PydanticAI (exploring)

**AI Techniques:** RAG, Prompt Engineering, Transformer Architectures, Dataset Curation, AI Agents

**Deployment & MLOps:** Docker, FastAPI, GitHub Actions, Weights & Biases

**Data & Visualization:** BigQuery, MongoDB, Tableau, Seaborn, ggplot2

**PROJECTS**

**JobHunt-Agent: Multi-Agent LLM System for Ethical Resume Optimization**

* Built a Streamlit application featuring five coordinated AI agents to optimize resumes against job postings using OpenRouter (OpenAI-compatible) and Exa APIs.
* Implemented strict truthfulness safeguards to prevent fabrication, ensuring all recommendations were grounded in provided resume and job data.
* Designed agent workflows inspired by CrewAI's collaborative paradigm, enabling specialized roles (gap analysis, keyword matching, rewrite generation).

**SycoBench: LLM Evaluation Framework for Sycophancy Detection**

* Developed a benchmarking system to evaluate Large Language Models (LLMs) for sycophancy—excessive agreement with user inputs—using custom prompt engineering and quantitative metrics.
* Engineered a Python backend to automate model evaluation across multiple LLMs via OpenAI-compatible APIs, enabling systematic comparison of transformer architectures.
* Created an interactive dashboard (Next.js) with prompt-level filtering to identify bias patterns, supporting human evaluation and model selection for production use.

**PdVerse: RAG-Powered Chatbot for Document Intelligence**

* Built a chatbot application using RAG (Retrieval-Augmented Generation) to enable semantic Q&A over PDF documents, integrating OpenAI API for LLM inference.
* Implemented hybrid retrieval with local/offline vector search, ensuring low-latency inference and data privacy for sensitive documents.
* Designed modular chat memory and document persistence system, demonstrating end-to-end development of production-ready AI solutions.

**OCR App Using Gemini Flash**

* Developed a Streamlit-based chatbot-like interface that uses Google Gemini API to extract and format text from images via prompt engineering.
* Designed user-friendly workflow for image upload and Markdown output, demonstrating ability to integrate LLM APIs into practical applications.

**Customer Segmentation Using RFM Analysis & Unsupervised Machine Learning**

* Enhanced customer segmentation by combining RFM, demographics, and behavioral data with UMAP and HDBSCAN.
* Achieved high-quality clusters with DBCV score of 0.73 and Trustworthiness score of 0.98, confirming reliability of cluster assignments.

**WORK EXPERIENCE**

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| **Problem Generator | Junior Programmer | Zenius Education** | **May 2021 – Nov 2021** |

* Developed educational content using Clojure and Python, showcasing strong programming and problem-solving skills.
* Implemented process enhancements resulting in a 90% reduction in production errors across thousands of JSON files.
* Provided technical guidance to junior team members, advancing to Team Lead within two months.

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| **Data Analyst | Zenius Education** | **Nov 2021 – Jun 2022** |

* Executed end-to-end data preprocessing and dataset curation pipelines using BigQuery and SageMaker, preparing structured datasets for machine learning applications.
* Collaborated with cross-functional teams on AWS to deploy analytical models, gaining exposure to cloud platforms and production deployment workflows.

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| **Education Mentor | Kampus Merdeka** | **Feb 2022 – Jun 2023** |

* Mentored 70+ university students in machine learning and LLM fundamentals, covering transformer architectures, prompt engineering, and model evaluation.
* Evaluated end-to-end student projects, emphasizing technical communication and production-ready model deployment practices.

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| **Tutor Assistant | Rakamin Academy** | **Dec 2023 – Apr 2024** |

* Provided Data Science mentoring to 25 students with diverse backgrounds.
* Assessed complete data science projects, from SQL database queries to Python model building and evaluation.

**EDUCATION**

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| **Master of Science in Data Science & Analytics** | **2020 – 2024** |
| ***University of Science Malaysia*** |  |

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| **Bachelor of Science in Physics** | **2015 – 2019** |
| ***University of Malaya*** |  |

**CERTIFICATIONS**

**BCG X Data Science** | Forage | Sep 2024

**Decision Intelligence** | Cassie Kozyrkov | Sep 2023

**Data Analytics Methods for Marketing** | Meta | Aug 2023

**Goldman Sachs Excel for Business** | Forage | Mar 2021