**Muhammad Ramdhan Hidayat**

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**SUMMARY**

AI Engineer with a Master's in Data Science, specializing in the design and development of autonomous, goal-driven AI systems. Experienced in architecting RAG pipelines and multi-agent applications using Python, LangChain, and modern LLM APIs. Proven ability to build and evaluate complex AI solutions, from semantic search to agentic workflow orchestration.

**TECHNICAL SKILLS**

**Languages:** Python, SQL, R

**AI & LLM Frameworks:** LangChain, Hugging Face Transformers, OpenAI API, Streamlit

**AI Concepts:** RAG, Multi-Agent Systems, Vector Search, Prompt Engineering, LLM Evaluation, Embeddings

**Databases & Data:** Google BigQuery, MongoDB, Vector Search & Databases (FAISS, ChromaDB), JSON

**DevOps & Tools:** Docker, Git, GitHub

**Integrations:** REST APIs, OpenAI API

**AI & ENGINEERING PROJECTS**

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| **JobHunt-Agent** |  |
| ***Multi-Agent Resume Optimization System*** |  |

* Architected a multi-agent AI system in Python to analyze and optimize resumes against job descriptions, orchestrating distinct agent roles for analysis, editing, and validation.
* Implemented features for ethical grounding to prevent information fabrication, ensuring all outputs were derived from source documents.
* Developed the application using Streamlit for rapid prototyping and user interaction, demonstrating full-stack AI application development capabilities.

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| **PdVerse** |  |
| ***RAG-Powered Document Intelligence Platform*** |  |

* Developed a hybrid Retrieval-Augmented Generation (RAG) pipeline in Python for semantic Q&A over large document sets.
* Integrated embedded vector search (FAISS) to enable efficient, low-latency information retrieval and improve contextual accuracy for the LLM.
* Designed a modular Python backend to handle document parsing, chunking, embedding generation, and integration with the OpenAI API.

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| **SycoBench** |  |
| ***AI Sycophancy Evaluation Dashboard*** |  |

* Designed and developed an LLM evaluation framework and interactive dashboard (Next.js, TypeScript) to measure and visualize model sycophancy (over-alignment with user bias).
* Implemented a Python backend for multi-metric computation, enabling robust comparison of bias across different LLMs and prompt structures.

**PROFESSIONAL EXPERIENCE**

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| **Problem Generator & Data Analyst** | **May 2021 – Jun 2022** |
| ***Zenius Education*** |  |

* Developed a Python-based system to automate the detection of production errors across thousands of JSON files, improving data integrity by 90%.
* Performed data analysis and modeling using Python, SQL (Google BigQuery), and R to generate actionable insights from user data.
* Extracted and processed large datasets from Google Cloud Platform for statistical analysis, including hypothesis and A/B testing.

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| **Education Mentor, Machine Learning** | **Feb 2022 – Jun 2023** |
| ***Kampus Merdeka*** |  |

* Mentored over 70 university students in advanced Machine Learning and Data Science topics.
* Evaluated end-to-end student data analysis projects, from data collection and processing to modeling and deployment.

**EDUCATION & CERTIFICATIONS**

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

* Focused on full-time graduate studies and development of advanced AI agent projects from June 2022 to present.

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

**Certifications:** BCG X Data Science, Meta Data Analytics, Decision Intelligence