**Muhammad Ramdhan Hidayat**

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**SUMMARY**

Highly motivated Master's graduate in Data Science & Analytics with up to 2 years of professional experience, passionate about developing and optimizing AI Agents. Proficient in Python, backend development with FastAPI, and experienced in leveraging Large Language Models (LLMs) and Natural Language Processing (NLP) for intelligent solutions. Eager to apply strong problem-solving and collaboration skills to build high-performance, scalable AI systems at WIZ.AI.

**TECHNICAL SKILLS**

**Programming Languages:** Python (Proficient), R, SQL, Clojure

**AI/ML & LLMs:** Large Language Models (LLMs), Natural Language Processing (NLP), AI Agents, RAG Systems, LangChain, Hugging Face Transformers, OpenAI API, Machine Learning, Deep Learning, Predictive Analytics, Statistical Modeling

**Backend & Databases:** FastAPI, Streamlit, API Development, MongoDB, Database Design (MongoDB schema), Google BigQuery

**Tools & Cloud:** Jupyter Notebook, Google Gemini Flash, Tableau, Google Data Studio, UMAP, HDBSCAN, OpenRouter, Exa, uv, AWS (Sagemaker)

**PROJECTS**

**Intelligent AI Assistant for PDF Management (PdVerse)**

* Architected and developed an intelligent AI Agent system for PDF management, integrating AI-powered semantic search and conversational interfaces for enhanced document understanding.
* Built a robust Python backend for document parsing, hybrid RAG retrieval (local/offline capabilities), and seamless API integration with OpenAI.
* Enabled semantic Q&A over PDFs using embedded vector search and designed a modular chat memory and document persistence system, significantly enhancing user experience.

**AI Agent Evaluation Framework & Dashboard (SycoBench)**

* Developed an LLM evaluation framework and interactive dashboard using a Python backend (for metric computation) and Next.js, to measure AI model sycophancy and bias.
* Implemented prompt-level filtering and quadrant visualizations, enabling detailed comparison and analysis of Large Language Models (LLMs) across diverse topics.
* Contributed to understanding and optimizing AI Agent behavior by identifying model over-alignment and bias, enhancing future AI Agent development.

**Customer Segmentation with Machine Learning for Marketing Optimization**

* Developed advanced customer segmentation models using Python (and R) and unsupervised machine learning techniques (UMAP, HDBSCAN) to optimize marketing campaigns.
* Achieved high-quality customer clusters (DBCV Score: 0.73, Trustworthiness Score: 0.98), providing data-driven insights for more effective marketing strategies and business goals.

**EXPERIENCE**

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| **Mentorship & Teaching Roles** | **Jakarta, Indonesia** |
| ***Kampus Merdeka & Rakamin Academy (Part-time during studies)*** | ***Feb 2022 - Apr 2024*** |

* Mentored over 95 students in Data Science, Machine Learning, and Data Analytics, covering end-to-end project execution from SQL querying to Python-based modeling.
* Provided comprehensive feedback on student projects, demonstrating strong understanding of data collection, processing, modeling, and deployment strategies.

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| **Data Analyst** | **Jakarta, Indonesia** |
| ***Zenius Education*** | ***Nov 2021 - June 2022*** |

* Performed data extraction using Google BigQuery; processed, cleansed, and modeled data on AWS/Amazon Sagemaker for collaborative work.
* Conducted statistical analyses (hypothesis testing, A/B testing) on user play data, generating data-driven insights that informed key business decisions and product optimization.

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| **Problem Generator/Junior Programmer** | **Jakarta, Indonesia** |
| ***Zenius Education*** | ***May 2021 - Nov 2021*** |

* Developed backend logic for gamified educational content, demonstrating strong programming and problem-solving skills.
* Applied Python for comprehensive data analysis, identifying and rectifying production errors across thousands of JSON files.
* Implemented process optimizations that reduced production errors by 90%, significantly enhancing system reliability and data quality.
* Provided technical guidance and mentorship to junior programmers, fostering team collaboration and skill development.

**EDUCATION**

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| **University of Science Malaysia** | **Penang, Malaysia** |
| ***Master of Science in Data Science & Analytics*** | ***2020 - 2024*** |

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| **University of Malaya** | **Kuala Lumpur, Malaysia** |
| ***Bachelor of Science in Physics*** | ***2015 - 2019*** |

**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)