**Muhammad Ramdhan Hidayat**

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**SUMMARY**

Data Scientist specializing in the end-to-end delivery of machine learning projects that solve critical business problems. Proficient in Python, SQL, and Generative AI, with hands-on experience developing and implementing models on cloud platforms including GCP and AWS. A collaborative problem-solver dedicated to translating complex business requirements into impactful technical solutions.

**TECHNICAL SKILLS**

* Languages: Python, SQL, R, Clojure
* Libraries & Frameworks: Python (Pandas, NumPy), Scikit-learn, LangChain, Hugging Face (Transformers), SQL
* Cloud & Databases: Google Cloud Platform (GCP), AWS, Google BigQuery, MongoDB, Docker
* Concepts: Deep Learning, Generative AI, Machine Learning, Unsupervised Learning, RAG, Statistical Modeling
* Visualization & Tools: Tableau, Google Data Studio, Streamlit, Seaborn, Git, GitHub

**PROFESSIONAL EXPERIENCE**

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| **Research and Policy Analyst** | **Nov 2023 – Present** |
| ***The House of Representatives, Republic of Indonesia*** | ***Jakarta, Indonesia*** |

* Conduct in-depth research and data analysis on complex policy issues to inform legislative decision-making, translating findings into comprehensive reports for government stakeholders
* Collaborate with cross-functional teams to align research objectives with strategic priorities, demonstrating strong stakeholder management skills

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| **Data Scientist & Developer** | **May 2021 – Jun 2022** |
| ***Zenius Education*** | ***Jakarta, Indonesia*** |

* Led the end-to-end data science lifecycle for user behavior analysis, from data extraction and cleansing using SQL (Google BigQuery) to model development and collaborative deployment on AWS Sagemaker, delivering insights that contributed to improved user engagement and product strategy
* Translated ambiguous business requirements into technical specifications for user engagement analysis, delivering data-driven insights from statistical and A/B testing that directly informed product strategy
* Developed and maintained a Python-based system to detect and rectify production errors across thousands of JSON files, achieving a 90% reduction in content pipeline errors
* Managed projects through the full software development lifecycle (SDLC), from requirements gathering with stakeholders to deploying production-ready code

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

* Mentored over 70 students in machine learning and data analytics, providing technical guidance and project feedback on end-to-end data science workflows

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| **Tutor Assistant, Data Science** | **Dec 2023 – Apr 2024** |
| ***Rakamin Academy*** | ***Remote*** |

* Provided data science mentorship to 25 students, assessing projects involving SQL, Python, and model building

**PROJECTS**

**Optimizing Customer Segmentation with Unsupervised Machine Learning**

* Developed and implemented an unsupervised machine learning model (UMAP, HDBSCAN) to segment customers, improving upon traditional RFM analysis for more effective marketing campaigns
* Delivered a highly accurate segmentation model with a DBCV Score of 0.73, providing actionable business intelligence for targeted marketing initiatives
* Tech Stack: Python, R, UMAP, HDBSCAN

**JobHunt-Agent: AI-Powered Resume Optimization Tool**

* Developed a full-stack web application using Python and Streamlit to provide AI-driven resume analysis, demonstrating skills in rapid prototyping and deploying machine learning models in a user-facing tool
* Implemented ethical grounding safeguards within the LLM agentic workflow to ensure factual accuracy and prevent data fabrication
* Tech Stack: Python, Streamlit, LLMs

**PdVerse: Intelligent PDF Management and AI Chat Assistant**

* Built an intelligent PDF management system using a hybrid RAG retrieval approach for semantic Q&A over documents, featuring local-first capabilities for enhanced data privacy
* Engineered a Python backend for document parsing, vector embedding, and AI integration with optional OpenAI API calls
* Tech Stack: Python, Next.js, React, RAG

**EDUCATION**

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

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| **University of Malaya** | **Malaysia** |
| ***Bachelor of Science, Physics*** | ***2015 – 2019*** |

**CERTIFICATIONS**

BCG X Data Science (Forage, In Progress) | Decision Intelligence (Cassie Kozyrkov, Sep 2023) | Data Analytics Methods for Marketing (Meta, Aug 2023) | Goldman Sachs Excel for Business (Forage, Mar 2021)