**Muhammad Ramdhan Hidayat**

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**SUMMARY**

Data Analyst with 1+ years of experience transforming complex data into actionable business insights using Python, SQL, and Tableau. Skilled in statistical analysis, A/B testing, and unsupervised machine learning (scikit-learn, UMAP, HDBSCAN) to drive data-driven decision-making. Proven ability to build end-to-end analytics pipelines and communicate findings to stakeholders in education and legislative policy.

**TECHNICAL SKILLS**

**Languages:** Python (pandas, numpy, scikit-learn, FastAPI), SQL, R, TypeScript

**Frameworks:** Streamlit, React, TailwindCSS, Framer Motion

**Databases:** Google BigQuery, SQLite, MongoDB

**Tools:** Tableau, Google Data Studio, Git, Docker, Weights & Biases

**Cloud:** Google Cloud Platform (GCP); API Integration: OpenRouter, Exa API

**Domains:** Data Analysis, Machine Learning, A/B Testing, Customer Segmentation, AI Ethics, Data Governance

**EXPERIENCE**

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| **Research and Policy Analyst** | **Jakarta, Indonesia** |
| ***The House of Representatives, Republic of Indonesia (DPR RI)*** | ***2024 – Present*** |

* Streamlined team workflows to ensure on-time delivery of high-impact legislative research projects.
* Conducted data gathering and analysis from public datasets and legislative meetings to deliver data-driven insights.
* Delivered briefing reports and official publications with visualizations and narrative explanations for non-technical stakeholders.

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| **Data Analyst** | **Jakarta, Indonesia** |
| ***Zenius Education*** | ***November 2021 – June 2022*** |

* Conducted end-to-end data analysis using SQL (BigQuery) and Python (pandas, scikit-learn) to extract, clean, and model user behavior data from ZenCore learning platform.
* Analyzed user engagement through statistical methods including hypothesis testing and A/B testing, delivering actionable insights that informed product decisions.
* Visualized key metrics using Tableau and Google Data Studio, enabling cross-functional teams to monitor performance and optimize user experience.
* Built a Python system to detect production errors in learning content, significantly improving data quality and consistency.
* Collaborated with engineering and content teams to ensure data accuracy and support scalable content delivery.

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| **Problem Generator Developer (Data Science)** | **Jakarta, Indonesia** |
| ***Zenius Education*** | ***May 2021 – November 2021*** |

* Developed hundreds of gamified learning problems in JSON format using Clojure, integrated with Python analytics pipelines for performance tracking.
* Collaborated with and mentored a team of problem generators, improving code efficiency and content quality.
* Built a Python system to detect production errors (duplicated answers, missing images) in learning content, significantly improving data quality and consistency.

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| **Education Mentor** | **Jakarta, Indonesia** |
| ***Rakamin Academy, Kampus Merdeka, Zenius*** | ***2021 – 2024*** |

* Mentored over 70 university students in data science, machine learning, and data analytics across three institutions.
* Provided technical feedback on end-to-end data projects, from SQL querying to model building and deployment.
* Supported curriculum delivery and assessment, bridging academic theory with real-world applications.

**PROJECTS**

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| **Optimizing Customer Segmentation Using RFM Analysis and Unsupervised Machine Learning** |  |
| ***Personal Project | GitHub: github.com/ramdhanhdy/DS\_Project*** |  |

* Integrated RFM, demographic, and behavioral data using Python (pandas, scikit-learn) and applied UMAP + HDBSCAN for advanced clustering.
* Achieved high cluster quality with DBCV Score of 0.73 and Trustworthiness Score of 0.98, surpassing traditional RFM segmentation.
* Resolved age group capture issues in segmentation, enabling more effective targeting for marketing campaigns.

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| **resume-optimizer** |  |
| ***Open Source | GitHub: github.com/ramdhanhdy/resume-optimizer*** |  |

* Built a deterministic 5-agent AI pipeline using Python (FastAPI) and LLMs to ethically optimize resumes based on job postings.
* Designed sequential architecture (analysis → strategy → implementation → validation → polish) with SQLite for state persistence.
* Ensured evidence preservation and interpretability, aligning with AI ethics and data governance principles.

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| **JobHunt-Agent** |  |
| ***Open Source | GitHub: github.com/ramdhanhdy/JobHunt-Agent*** |  |

* Developed a Streamlit-based resume optimization tool using Python and LLMs with OpenRouter and Exa API integration.
* Enabled live job posting ingestion and multi-format resume input, supporting data-driven personalization.
* Implemented per-agent model selection and ethical safeguards for transparent AI decision-making.

**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**

* Data Analytics Methods for Marketing — Meta (August 2023)
* Decision Intelligence — Cassie Kozyrkov (September 2023)
* BCG X Data Science — Forage (September 2024)
* Goldman Sachs Excel for Business — Forage (March 2021)