Muhammad Dimas Hidayatullah bin Ikhsan

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EDUCATION

University of Malaya **Kuala Lumpur**
Master of Science in Data Science *October 2022 – November 2023*
- CGPA: 3.75/4.00
- Research Project: Personalized Learning with Generative AI – Educational Recommendations System using GANs.

University of Malaya **Kuala Lumpur**
Bachelor of Science in Physics *September 2018 – March 2022*
- CGPA: 3.69/4.00 MUET: Band 4
- Research Project: Momentum Calibrations of Particles in the COMET Experiment – Particle Detector Calibration.

WORK EXPERIENCE

NetGeometry Sdn. Bhd. **Kuala Lumpur**
Data Scientist *July 2024 – Present*
- Engineered and deployed a centralized data management system on Oracle Cloud, integrating a generative AI chatbot to streamline data access and significantly reduce report generation time (up to 80%).
- Designed and implemented an automated document extraction pipeline using deep neural networks and LLMs, achieving 90% accuracy and reducing manual intervention by 95%
- Served as a key problem solver, proactively diagnosing and resolving complex technical issues across data, network, system performance, and cloud infrastructure, minimizing disruptions to team productivity.

National Centre for Particle Physics **Kuala Lumpur**
Internship: Physics Intern *July 2021 – September 2021*
- Analyzed ATLAS experimental data on Standard Model Higgs Boson Production in the Higgs Decay.
- Applied machine learning for background reduction boosted Higgs decay signal significance by 70%.

PROJECTS

Recomposing Classical Music Utilizing Generative Artificial Intelligence. *January 2024 – March 2024*
- Prepared, processed, and analyzed MIDI representation data of audio files for classical music.
- Built multiple generative models such as GAN, RNN, VAE, and GPT.
- Developed a fusion generative model by combining three generative models of RNN, VAE, and GAN.

Personalized Learning with Generative Artificial Intelligence. *March 2023 – September 2023*
- Prepared, processed, and analyzed educational data from educational platform MOOCCube.
- Built the GAN model and its variant (MDGAN, Multi-GAN, Multi-MDGAN) by customizing the GAN model.
- Compared the models with baseline models based on MAP, HR, MRR and NDCG metrics.

Momentum Calibrations of Particles in the COMET Experiment. *August 2020 – December 2021*
- Simulated the COMET phase-I experiment by using ICEDUST implementing C++, Python, and shell scripting.
- Gathered and analyzed the simulation data based on the physics interactions, and characteristics of the particles.

SKILLS & LANGUAGES

Programming Languages: Python (Pandas, NumPy, SciPy, Scikit-learn, TensorFlow, Keras, PyTorch), R (dplyr, tidyr, shiny, reactable, caret), SQL, Shell Scripting, MATLAB, C++.

Cloud Computing: OCI (Compute, Object Storage, VCN, Autonomous Database, Data Science, Digital Assistant, Document Understanding, Generative AI Agent), GCP (Compute Engine, Cloud Storage, BigQuery, Cloud Data Fusion, Cloud Composer, VPC, Document AI, Vertex AI, Generative AI Services).

Big Data Technologies: Apache Hadoop, Spark, Hive, HBase, Pig.

Data Visualization: Power BI, Google Looker Studio, Oracle Analytics Cloud, Matplotlib, Seaborn.

Web Development: Oracle Apex, Flask, Django, HTML, JavaScript, CSS.

Other: SAS (Data & Statistical Analysis), Microsoft Office, LaTeX, CERN ROOT (Particle Physics Data Analysis Framework).

Languages: Malay (*Native Speaker*), English (*Competent*)