


Rephrain Archaimeric


Data Scientist · Data Engineer · Data Analyst

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Profile

Data professional with a proven track record in developing data pipelines, crafting machine learning models, and delivering actionable insights for diverse industries. Leveraging advanced Python and SQL skills, he has supported nationwide operations, such as providing ad-hoc data solutions to all BRI branches across Indonesia and some government institutions. His expertise includes big data tools like Hive and Impala, API integration for seamless external data retrieval, and Machine Learning for enhanced analytics. Passionate for working with data stems from its power to illuminate the unknown, drive innovation, and create tangible impacts. He is a hardworking, solution-oriented professional who thrives on challenges, viewing problems as an opportunity to grow and achieve success.

Professional Experience

Data Engineer [PT. Bank Rakyat Indonesia \(Persero\) Tbk](#) **Jakarta, Indonesia** 07/2024 - present (9 months)

Provide ad hoc data support for branches, internal divisions, partner entities and government institutions throughout Indonesia. Managing requests through a ticketing system in Jira and documenting workows in Confluence. He has solved \pm 190 ad hoc requests in the last 9 months. Using technologies like PySpark, HDFS, Hive, Impala, Cloudera Data Science Workbench (CDSW), SSMS, he processed and analyzed large datasets from the datalake and datamart. His role also involved engaging with government institutions such as the Ministry of Marine Affairs and Fisheries (Kementerian Kelautan dan Perikanan) and the Indonesian Audit Board (Badan Pemeriksa Keuangan), where he provided critical data to support the successful execution of their government programs. Furthermore, he directly liaised with stakeholders from PT Jaminan Kredit Indonesia (Jamkrindo), a key partner of BRI, to ensure the fulfillment of Jamkrindo's entitlements regarding claim data that had not been subrogated by PT Bank Rakyat Indonesia.

Full Stack Developer [Oratio Clinic](#) **Bandung, Indonesia** 07/2023 - 07/2024 (1 year)

Developed and maintained information system for the Oratio Clinic (dental specialist part of Limijati Hospital, Bandung), including modules for patient data management, appointment scheduling, medical record documentation, radiology (röntgen) documentation, consent documentation, and payment processing.

- Designed and developed internal web application using **MERN Stack**.
- **Collaborated with medical professionals and administrative staff** to gather requirements, ensuring the information system meets the needs and improves the efficiency of all hospital operations.
- **Automated odontogram creation and PDF generation** based on electronic medical record (EMR) entries, improving efficiency and accuracy by 40% and reducing manual input errors by 50%.
- **Automated the creation of financial documents** such as patient payment notes, receipts, and invoices.
- **Established a daily automated backup system** for medical records.

Developed the SATUSEHAT Integrated Information System using REST APIs, facilitating seamless exchange and access of patient data across 240.000+ healthcare providers in Indonesia.

- Designed and developed SATUSEHAT API integrated application using **Django**
- **Authored detailed documentation** for both internal systems and the SATUSEHAT integration, including step-by-step tutorials and user guidelines.
- **Educated 30+ healthcare professionals on new information system**, highlighting key functionalities and benefits; achieved 90% adoption rate and reduced manual data entry errors by 40% within the first month.

Achievement

1. Percentage error of 3% – 8%.
2. 14/15 doctors were satisfied with the information system he created and presented with 95% satisfaction percentage and several compliments.
3. Improved system with 2x more secure than internal information systems by using user authentication and static IP address.
4. 80% completeness of SATUSEHAT module for the dental outpatient section.

Freelance *Fiverr*

Remote 03/2024 - 05/2024 (3 months)

Developed custom automation solutions, applications, and API integration using Python.

- **Create integrated system and workflow automation** of *Domestic Energy Performance Certificates API* from *Energy Performance of Buildings Data England and Wales* for client in the United Kingdom (UK).
- **Consulted on API integration projects**, providing expertise on integrating WhatsApp API and Midtrans API for a storage company in Bali.

Achievement

1. Successfully created an API integrated system that exceeded the expectations of the client in UK for 20% by developing and providing new ideas for the client
2. Successfully meeting tight deadlines and delivering high-quality work for clients.
3. Consistently received positive feedback from clients

Data Scientist *Parahyangan Catholic University*

Bandung, Indonesia 03/2023 - 03/2024 (1 year)

Detect changes and predict green open space land use for the next five years in each urban village in Bandung, Indonesia, utilizing Sentinel-2 satellite data. This analysis aligns with Law No. 26 of 2007 on Spatial Planning and Regulation of the Minister of Public Works and Spatial Planning No. 5 of 2008 on Guidelines for the Provision and Utilization of Green Open Space in Urban Areas, which require green open space to comprise at least 30% of urban areas (20% public, 10% private).

- **Conducted land cover analysis** using Sentinel-2 satellite data to identify and predict changes in green open spaces. Developed a robust workflow combining remote sensing techniques, machine learning, and geospatial tools.
- **Designed and evaluated multiple machine learning models**, including k-Nearest Neighbors (k-NN), Bernoulli Naive Bayes, Decision Tree, and Random Forest Classifier, to classify land cover features.
- **Manually labeled satellite raster data** using Labelbox, focusing on accurately distinguishing between plant and non-plant categories. This step was critical in creating high-quality training data for machine learning models.
- **Leveraged QGIS for exploratory data analysis and visualization**, providing valuable insights into urban land cover patterns.
- **Developed and deployed web-based application** to share results with stakeholders. Using Express JS, Node JS and MySQL.
- **Led a team and a successful webinar event**, collaborating with a cross-functional team to present findings to an audience of approximately 100-150 participants, including professors and students from multiple institutions.

Achievement

1. Earned commendations from professors and professionals for effectively communicating complex analysis and practical implications.
2. Delivered a 90% accuracy rate, validating the effectiveness of machine learning models for remote sensing tasks.
3. Provided actionable insights for urban planners to evaluate and enhance compliance with legal green open space requirements.

Education

Informatics Engineering (Data Science) *Parahyangan Catholic University*

Bandung, ID 2020-2024

Thesis: Satellite Data Analysis to Detect and Map Surface Urban Heat Island in West Java Province

Skills

- Data Science & AI.....
- **Core Skills:** Statistics, Data Mining, Machine Learning, Deep Learning, NLP
 - **Specializations:** Generative AI, LLM, OpenAI, Geospatial AI, Retrieval-Augmented Generation (RAG), Fine-Tuning
 - **Tools & Platforms:** Tableau, Google Earth Engine (GEE), Cloudera Data Science Workbench (CDSW)
- Data Engineering.....
- **Databases & Querying:** SQL Server Management Studio, PostgreSQL, Hive, Impala
 - **Big Data & Processing:** HDFS, Apache Spark, PySpark
 - **Data Collection & Pipelines:** Web Scraping, REST API
- Software & Web Development.....
- **Backend & APIs:** REST API, Django, MERN Stack

- **API Testing & Version Control:** Postman API, GitHub

Programming Languages.....

- Python, SQL, JavaScript, Java, R

Online Courses & Certifications

- R for Data Science (Feb. 2024) - [Cognitive Class](#)
- Voxy Proficiency Achievement Certificate (Aug. 2023) - [Voxy](#)
- Analytical and Creative Thinking (Sept. 2022) - [Markplus Institute](#)
- Data Science Methodology (Apr. 2022) - [Cognitive Class](#)
- SQL (Jan. 2022) - [Progate](#)

Languages

- **Indonesia** [Native]
- **English** [High Intermediate] - B2