ZIKRY ADJIE NUGRAHA
Data Scientist
Jakarta, Indonesia

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SUMMARY

Data Scientist specializing in AI, LLM, Machine Learning, Data Analytics, NLP, and Computer Vision, with more than 3 years of experience in IT consulting, solving complex business problems for over 10 top national and international companies across e-commerce, digital marketing, finance, and banking industries. Familiar with Python, SQL, and various cloud platforms such as GCP, AWS, and Microsoft Azure for data engineering, exploration, modeling, analysis, and automation. He is also experienced in leading, and delivering more than 20 data science projects to create impactful business solutions and ensure actual real-life implementation for clients in a timely manner. Zikry is motivated to broaden his knowledge in the related data science expertise.

WORK EXPERIENCES

NucleusX BV (AI & Data Analytics consultant firms based in Netherlands)
AI Data Scientist – Specialized in AI LLM, NLP, and Data Analytics projects.   **February 2024 – Present**

Key Responsibilities:
- Implemented 10+ data science projects focusing on AI, ML, NLP, and chatbot development, integrating with Microsoft Azure and AWS cloud services.
- Developed an end-to-end Generative AI, ML, and NLP pipeline seamlessly integrated into cloud infrastructure and deployed using various AWS services.
- Integrated Generative AI features using Azure OpenAI into client applications and optimized AI model performance for greater accuracy and reliability.
- Collaborated with international stakeholders and multidisciplinary teams, communicating complex data science insights to C-level leaders in business English.

Key Achievements & Data Science Projects:
- **(Live Deployment)** Developed a RAG chatbot supporting 3 languages and 100+ daily conversation for a finance company users in Netherlands and Germany.
- **(Live Deployment)** Developed an AI-powered question-answering automation system to analyze and extract insights from 300+ customer FAQs weekly.
- **(Live Deployment)** Redesigned NLP product matching algorithm using Integrated AI data cleaning, increasing the matching rate from 50% to 80%.
- Improved the LLM prompting algorithm for store review categorization, reducing total unclassified labels from 60% to 10% of 50,000+ reviews.
- Designed the complicated AI LLM labelling feature to detect target industry markets from the list of 20,000+ company descriptions within 1 week deadline.
- Initiated AI NLP product matching standardization, reducing matching algorithm creation from 3 weeks to 5 days.

IlmuOne Data (Digital Marketing & Data Analytics consultant firm based in Indonesia)
Data Scientist – Specialized in Data Analytics, Machine learning, and Computer vision projects.   **March 2022 – January 2024**

Key Responsibilities:
- **(Acting senior)** Led the team projects and responsible for the completion of 10+ data science projects, especially in Computer Vision, Data Analytics and ML projects.
- **(Acting senior)** Delivered and presented the data science business solutions to numerous national clients on the weekly basis.
- **(Acting senior)** Managed task distribution and project timeline among other data science team members based on their skills & knowledges and workload.
- **(Acting senior)** Guided and mentored Junior Data Scientist on day-to-day project completion.
- Designed and monitored the ETL data engineering, Python data transformation, and automation for numerous projects within Google Cloud Platform.
- Designed and performed data queries to acquire business insights using SQL and BigQuery, with experience querying terabyte-sized e-commerce big data.
- Analyzed and gained business solutions for data-driven decision-making from Google Analytics and visualized it into Looker Studio dashboard.

Key Achievement & Data Science Projects:
- **(Live Deployment)** Developed a computer vision automation with Vision AI, reducing the creative team ad image analysis time from 3 weeks to 1 day.
- **(Live Deployment)** Built and integrated data pipelines in GCP and BigQuery, visualizing insights through Looker Studio dashboards for 5+ client projects.
- Designed a BigQuery validation on GA360-to-GA4 migration for an e-commerce client, reducing data discrepancies from 50% to 10% of 5+ TB big data.
- Developed a time series machine learning model for ROI forecasting with 85% accuracy, enabling 5-day advance planning for the digital marketing team.
- Designed a data engineering pipeline to extract HD satellite imagery data and use it in YOLO computer vision for shrimp ponds detection.

SKILLS AND KNOWLEDGES

- **Language Skills:** English IELTS overall 6.5, Listening 7.0, Reading 7.0, Writing 6.0, Speaking 5.5.
- **Programming Skills:** Python & SQL (Data Modelling and Analytics), HTML & CSS (Web Scraping), Bash (File uploading to server).
- **AI & LLM:** Microsoft Azure OpenAI, VertexAI Gemini, Amazon Bedrock, RAG, LangChain, Prompt Engineering, AI Infrastructure.
- **Computer Vision:** Google Vision AI, OpenCV, YOLO, Tensorflow, Keras, PyTorch, Google Gemini Vision, GPT-4 vision.
- **Natural Language Processing:** Fast text, Tokenizer, Huggingface NLP model, NLP-based similarity model (Jaro-winkler, Cosine similarity, Fuzzy).
- **Machine Learning:** Hyperparameter tuning, Scikit-learn, AWS Sagemaker, Azure Machine Learning Studio.
- **Data Automation:** GCP automation (Cloud function, Pubsub, Cloud scheduler), AWS automation (AWS EC2, AWS Lambda, AWS AppRunner, Cronjob scheduler).
- **Data Storage:** SFTP, Amazon S3, Google Cloud Storage.
- **Database:** Google BigQuery, Amazon RDS, PostgreSQL, Qdrant Vector DB, Azure Cosmos Vector DB.
- **Data Analytics:** Google Analytics (GA 360 / GA4), Google Ads Data hub, Google Ads Manager.
- **Data Visualization:** Google Looker Studio, Tableau, PowerBI, Matplotlib, Seaborn.

LIST OF ARTICLES AND RESEARCH PUBLICATIONS

AI-Powered Alarm Diagnostic Assistant: Integrating BLIV and Vertex AI for Smart Industrial Maintenance with RAG ([Github](#))
- Integrates the BLIV Dashboard for real-time manufacturing flow monitoring with Vertex AI RAG to retrieve contextually relevant information for diagnosing and resolving machine errors, significantly reducing problem resolution time and optimize maintenance resource utilization.

Evaluation of the Multimodal Gemini Model in Analyzing Nutritional Value Information of Products for Diabetes Prevention ([Journal link](#), [Seminar proof](#))
- Evaluates the Gemini 1.5 Flash multimodal LLM model in analyzing sugar content from photos of nutritional information on 10 beverage products, achieving 90% accuracy and an F1 score of 94%.

AI-Driven Diabetes Prediction and Personalized Nutritional Recommendation System ([Github](#), [Model deployment](#))
- Includes three features: 1. ML-based diabetes prediction, 2. Food recommendations tailored to diabetes results, and 3. AI OCR on product composition labels for food recommendation. Each feature is enhanced with GenAI to provide additional nutritional insights based on the ML model results.

Simple Computer Vision Image Creative Analysis using Google Vision API ([Github](#), [Towards Data Science Article](#))
- Tutorial demonstration on using Google Vision AI to extract meaningful information from an image and identify key parameters such as object, text, color.

Tree-Based Algorithms Approach on Predicting Customer Satisfaction ([Github](#), [Towards Data Science Article](#))
- Tutorial on designing a machine learning hyperparameter model and evaluating it to predict customer satisfaction from an e-commerce dataset.

EDA and Visualization of Indonesia Earthquake Over the last 20 years ([Github](#), [Towards Data Science Article](#))
- Earthquake data analysis, visualization, and insights creation focused on the region of Indonesia over the past 20 years.

EDUCATIONS

Sultan Ageng Tirtayasa University   September 2015 – July 2019
- **Major:** Bachelor of Metallurgical Engineering (GPA 3.28 of 4.00)
- **Data Science related study:** Calculus, Statistics, Physics, Numerical Analysis & Modeling, Computer & Programming, Metallurgical Process Simulation

TRAINING AND CERTIFICATIONS

Google Analytics Full Course for Certification   March 2022 – May 2022
- **Major:** Google Analytics Certification course
- **Data Science related study:** Advanced Google Analytics, Google Looker Studio, Google Analytics 4 and 360, Google BigQuery

Dibimbing IT Bootcamp   August 2021 – December 2021
- **Major:** Full stack Data Science Bootcamp
- **Data Science related study:** Python, SQL, Data Science theory, Exploratory Data Analysis, Data visualization, Machine Learning, Project preparation

ACHIEVEMENTS AND AWARDS

Top 8 finalist of Spark Telkomsel National Datathon ([News 1](#), [News 2](#), [LinkedIn](#))   February 2025
- Surpassed 65+ teams nationwide, recognized as the only team who delivers the only AI innovation in manufacturing.

Top 10 finalist of AI category in BPJS Kesehatan National Healthkathon ([News](#), [LinkedIn](#)).   November 2024
- Chosen as a finalist from 350+ teams across national level, recognized for developing an AI innovation for the Diabetes patient.

Excellence Staff in Domain Knowledge Curiosity IlmuOne Data   March 2023
- Acknowledged as the top performer among 30+ coworkers for outstanding curiosity in domain knowledge exploration.

2nd best Data Science Final Project   December 2021
- Achieved 2nd best project among 40+ students with project featured on Towards Data Science platform.

Grantee of the POSCO Asia International Fellowship Scholarship   October 2018
- Earned the scholarship for self-development and thesis after a highly competitive selection process involving over 100+ applicants in Indonesia.

2nd Highest TOEFL PBT rank at 573   May 2017
- Surpassed over 100+ University students test takers.

Staff of the Month at Metallurgy National Organization   May 2017
- Honored for exceptional commitment in organizing a national-level Metallurgy sports competition.

1st Highest TOEFL PBT rank at 540   February 2014
- Ranked 1st over 270+ High school students test takers.

ORGANIZATION & VOLUNTEERING EXPERIENCES

Liaison officer at Habitat for Humanity 28uild ([News](#))   October 2019
- Acted as a mediator between volunteers, and community partners to paint 10+ houses and prompoting cleanliness.

Indonesian Student Volunteer at POSCO Global Youth Volunteer ([News](#))   January 2019
- Built 10 houses, education volunteering to 100+ junior high school students, and cultural festival between Indonesia & South Korea international students.

Head of Committee at National Metallurgy Sport Competition   July 2017
- Supervised the planning and execution of the event by leading a committee of 40+ members with 100+ participant from Indonesia's top universities.

Internal Staff at National Metallurgical and Material Student Association   January 2017 – February 2018
- Facilitated internal collaboration and communication of national student associations consisting of 100+ members from 6 different universities in Indonesia,

Research and Development Staff at Metallurgical Student Association of Sultan Ageng Tirtayasa University   January 2016 – February 2018
- Empowering student association 80+ members to pursue and advance metallurgical research and development at campus.