

WORK EXPERIENCE

Machine Learning Engineer	Telkomsel	July 2023 - Present
<ul style="list-style-type: none">● Spearheaded the implementation of inhouse LLMOps Platform and multiple GenAI use cases to enhance business operations, serving as the technical lead:<ul style="list-style-type: none">○ Probing Machine:: Developed a system for analysing offer prices between Telkomsel and its competitors.○ Root Cause Analysis Chatbot: Implemented a chatbot that analyzes business questions related to financial performance.○ Smart Data Catalog: Established a batch system to manage and populate metadata for data tables, including descriptions and classification levels.○ Summarizer System: Created a multi-level problem summarizer for all Telkomsel branches, organizing issues from the branch level up to the national level.○ Many more AI projects I cannot officially list in my CV, we can talk about this directly● In-house MLops & LLMops Platform: Took part in developing and maintaining an in-house MLops platform. This platform is responsible for managing the full lifecycles of ML Models used across Telkomsel. Key technologies involved include Elyra, Kubernetes, and FastAPI.● KTP OCR Development: Implemented an OCR system for extracting information from Indonesian ID cards (KTP). Focused on improving the system's resilience to handle tilted, skewed, and rotated data, enhancing process robustness. The system was developed using PaddleOCR, Python, and TensorFlow.● Tech stack used : Airflow, AWS Cloud, OpenAI GPT, Gemini, Guardrail, Dify LLMops, Langchain, and Kubernetes● Managed vendor teams, overseeing the development of these use cases and ensuring adherence to code conduct and delivery timelines.		
Data Scientist	JobKred	August 2021 - July 2023
<ul style="list-style-type: none">● Developed and researched machine learning solutions to accommodate business processes. Worked with various language models such as GPT-2 and BERT● Developed and maintained a web crawler pipeline to scrape job ads and identify trending skills in the market.● Developed and maintained two separate python and javascript testing CICD with Pytest, Playwright, Artillery, and Github Action.● Tech stack used: huggingface, Python, PyTorch, Airflow, Django, scrapy, docker, Kubernetes, GCP, BigQuery, Google PubSub.		
Fullstack Software Engineer Part-Time	JobKred	August 2021 - May 2022
<ul style="list-style-type: none">● Developed and maintained internal Data Engineering applications concerned with data annotation and interpretation.● Developed and maintained web crawler pipeline to scrape job ads and identify trending skills in the market.● Tech stack used: Airflow, Django, scrapy, docker, Kubernetes, GCP, BigQuery, Google PubSub.		
Lead Chatbot Developer Part-Time	Chatbiz	February 2021 - June 2021
<ul style="list-style-type: none">● Developed and maintained WhatsApp Chatbot.● Developed with the serverless framework, Node.js, AWS Lambda, AWS step-functions and DynamoDB● Uses Wit.ai, Google Dialogflow, and Rasa NLP Chatbot framework SDK development for intent classification.● Automated wit.ai utterances, and intent training with Golang.		
Backend Developer Part-Time	Xtremax	February 2020 - November 2020
<ul style="list-style-type: none">● Developed and maintained an established ASP.NET MVC Website.● Developed event-based module for Sitecore Content Editor.● Sitecore CMS project developments and maintenance.● Tech stack used: Sitecore, ASP.NET, C#, Docker, Bitbucket, MSSQL.		
Backend Engineer Intern	Roketin	May 2019 - July 2019
<ul style="list-style-type: none">● Developed server-side web API and handled NoSQL state exchange for an insurance company.		

- Refactored transaction microservice to a new REST API structure resulting in a 20% increase in request handling speed.
- Tech stack used: Docker, Golang, GitLab, MongoDB, Go-Chi.

EDUCATION

Master's degree in Computer Science	Institut Teknologi Bandung	August 2021 - September 2022
<ul style="list-style-type: none"> • GPA 3.81/4.00 (cum laude) • Fast-Track Program (Bachelor - Master Degree) in 5 Years. • Relevant coursework: Advanced Natural Language Processing, Pattern Recognition, etc. • Also worked as Knowledge Representation and Pattern Recognition course assistant • Master's Thesis: Few-shot Learning in Indonesian Language Text Classification. 		
Bachelor's degree in Informatics	Institut Teknologi Bandung	July 2017 - July 2021
<ul style="list-style-type: none"> • GPA 3.65/4.00 (cum laude). • Relevant coursework: Machine Learning, Deep Learning, Object-Oriented Programming, Cloud Computing, etc. • Bachelor's Thesis: Development of Citation Intent Classification and Citation Sentiment Classification Model on COVID-19 Dataset. 		

TECHNICAL EXPERIENCE

PROJECTS

- **Few-shot learning in the Indonesian Language (2022)**
My Master's Thesis in Natural Language Processing presents a new alternative to Indonesian text classification using very minimal data while achieving competitive results to all-shot approach. Benchmarked on IndoNLU dataset, Uses GPT-Neo, IndoGPT, XGLM, XLM-R, Huggingface, and Pytorch for research.
- **PA-GPT Personal Assistant (2022)**
Developed an innovative web-based AI companion utilizing GPT and Langchain, featuring diverse functionalities including internet search, Wolfram-Calculator for complex math, Arxiv for academic paper summaries, Python coding capabilities, Wikipedia information retrieval, and an experimental Gmail management tool. Notably, the project includes 'Rayza-QA', a unique function accessing a vector text-embedded Google Docs autobiography, designed to provide interactive insights about me for potential interviewers.
More details can be found below :
 1. <https://portfolio-web-249407.web.app/chatbot>
 2. <https://www.linkedin.com/pulse/yet-another-ai-assistant-rayza-mahendra%3FtrackingId=gCyL68UIS3mc557Hu1qF8Q%253D%253D/?trackingId=gCyL68UIS3mc557Hu1qF8Q%3D%3D>
- **Citation Intent & Sentiment Analysis (2021)**
Final year project of my bachelor's thesis, the system uses the CORD-19 dataset to map scientific journals citation into knowledge graphs. Classifier uses SciBERT, Word2vec and XLnet.
- **Argus - Social Network Analysis Tools (2019)**
WebApp social network analysis software to map relations on Twitter sentimentality demographics commissioned by the Social Relations Ministry in KM ITB.
Techstack used: Laravel, MySQL, D3.js.
- **Therwell - Well Property Prediction Tools (2019)**
Desktop app to measure well properties at various depths implements a pre-established calculation
Techstack used : Tkinter, Python, Pandas.
- **WhatsApp Personal ChatGPT (2020)**
ChatGPT without the hassle of always using logging in to the website, accessible through whatsapp chat here with Twilio : +1 (415) 523-8886, just text join detail-basis and chat away
Techstack used : Node, OpenAI, Google Cloud Run, Docker, Express.
- **rayzamahendra.xyz**
Portfolio website to display work relevant information, tech stack used: Vue.js, CSS, HTML, Javascript.

Notable Projects:

- **Android Bola Sepak App**, an Android application displaying English football league scores and match schedules.
 - **Hadoop**, Basic understanding of MapReduce Hadoop function and distributed computing.
-

SKILLS

- Comfortable in Python, Golang, C#, Javascript, C++, and Java.
 - Deep Learning understanding and somewhat familiar with Keras and Tensorflow.
 - Have basic knowledge and know-how in using NLTK, and Spacy for Natural Language Processing tasks.
 - Familiar with Git, Docker, AWS, and similar cloud computing engines.
 - Familiar with designing REST API with frameworks such as Django, Express JS, Node, Go.
 - Converse in business level verbal and written English.
-

LEADERSHIP EXPERIENCE AND ORGANIZATION

- HMIF - Head of Kinship Division (2020).
 - Genshiken ITB - Vice Head of Kinship Division (2019).
 - Genshiken ITB - Vice Head of Musical Division (2018).
-

ACHIEVEMENTS

- HackSense, Hackathon by Codersense 2020, 1st Prize Winner.
- Global Telecom (Glotel) Awards 2024, Paper Finalist on AI & Automation, Competitor Analysis