Karisa Zihni Lutfiana

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github.com/karisazi | karisazi.github.io

ABOUT ME

Machine learning practitioner skilled in Python, TensorFlow, Scikit-Learn, and OpenCV, with hands-on experience in developing and deploying models for computer vision, regression, and AI tasks. Experienced in data preprocessing, model optimization, and API development through academic projects and internships. Passionate about solving real-world problems using ML and AI, and eager to contribute to a collaborative tech team.

SKILLS

- **Programming languages:** Python, JavaScript, SQL
- **Programming Frameworks:** Sscikit-Learn, TensorFlow, OpenCV, Pandas, Numpy, Matplotlib, Seaborn, Flask, FastAPI, Docker
- **Machine Learning Techniques**: Regression, Classification, Clustering, Deep Learning, ANN, CNN, RNN, Generative AI (LLMs)
- **Deployment:** Flask, FastAPI, RESTful APIs, GCP (Vertex AI, BigQuery, Cloud Storage), MLflow, Git

CERTIFICATIONS & PROGRAMS

Google Cloud Skills Program – JuaraGCP | Google Cloud (Indonesia) | *bit.ly/GoogleDevCertifs-Karisa*   *Feb – March 2025*
- Completed hands-on labs on Compute Engine, Cloud Storage, BigQuery, Cloud Functions, and AI APIs.
- Developed practical cloud skills by deploying virtual machines, querying datasets, and exploring cloud-based AI services

Bangkit Academy – Machine Learning Cohort | Google, GoTo, Traveloka | *bit.ly/BangkitTranscript-Karisa*   *Feb – July 2023*
- Completed a 900+ hour Google-led program on Python, Machine Learning, TensorFlow, and model deployment.
- Built a deep learning-based waste classification model using CNN, deployed via a Flask API, achieving 85% accuracy.
- Applied end-to-end ML engineering in a real-world capstone project with GCP integration and team collaboration.

PORTFOLIO PROJECTS

Fake Job Posting Detection – *In Progress*   *June 2025 - Present*
- Developing a binary text classification model to identify fraudulent job listings using a real-world Kaggle dataset.
- Addressing class imbalance with **oversampling** and class-weighted loss to improve minority class recall.
- Extracting features using **TF-IDF** and experimenting with models including Logistic Regression and **BERT**.
- Containerized the project with **Docker** and used **MLflow** to track experiments and model performance.

Beame – *https://github.com/karisazi/beame-face-recognition.git*   *28 April –16 May 2025*
- Created a real-time webcam-based system that detects individuals and greets them with a personalized "Hi [Name]".
- Used Haar cascades to detect faces and eyes, then applied wavelet transformation to extract meaningful features.
- Trained an SVM model to classify faces into 4 categories, achieving **91% accuracy** and an **F1-score of 0.91**.
- Integrated OpenCV in pipeline for image handling, transformation, and face detection, enabling smooth video processing.

DataJobsPay – *https://github.com/karisazi/DSJobsPay-Predictor.git*   *23 March – 17 April 2025*
- Developed a machine learning model to predict data science job salaries using 6,000+ curated Kaggle job listings.
- Implemented Ridge Regression with hyperparameter tuning (GridSearchCV), achieving **MAE ≈ \$40K**.
- Performed feature engineering and created a pipeline using custom **transformers** to encode categorical attributes.
- Interpreted model coefficients to identify key salary predictors**:** currency, experience level, residence, and job title.

EDUCATION

Diponegoro University, Computer Engineering | Bachelor of Engineering | Semarang, Indonesia | 2019 – 2023
- Cummulative GPA: 3.89/4.0, Best Graduate 2023

EXPERIENCE

PT. Waktu Cipta Dimensi – Python Developer   *December 2024 – February 2025*
- Developed and maintained backend components for web applications using Django and PostgreSQL database.
- Designed and implemented RESTful APIs to enable seamless integration with frontend systems.

Angusta System - AI Engineer Intern   *March 2024 – May 2024*
- Developed automatic system API for retrieval information that automatically cleans data and generates prediction results using Flask and AutoML.
- Aided team in data collection and data cleaning; ensuring the data was accurate and ready for further development