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Tasikmalaya, Indonesia

A Computer Science graduate from Diponegoro University with a strong passion for data science, machine learning, and AI development. Spent 3 years and 9 months exploring data analysis, web development, and image processing, with a deep curiosity about how machine learning models work and evolve.

Skilled in predictive modelling, deep learning, and AI-driven analytics. Experienced in data visualization and design through various organizational projects. Currently conducting a data science research project focused on model optimization.

Proficient in Laravel web development, with hands-on experience building dynamic, database-driven websites. Developed admin panels, integrated APIs, implemented Leaflet.js maps, and QR code systems—strengthening my full-stack development and user-focused design skills.

EDUCATION

Diponegoro University Informatics, Cumulative GPA: 3.76/4.0 (Cum Laude)	Aug 2020 – Jun 2024
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TRAINING

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| • Bootcamp React JS by Progate
<i>Built interactive React.js applications, focusing on state management, hooks, and component-based architecture.</i> | Jakarta, Indonesia
Jun 2022 – Jul 2022 |
| • Oracle Cloud Infrastructure Foundations I
<i>Gained expertise in cloud computing, storage, networking, and security on Oracle Cloud Infrastructure (OCI).</i> | Semarang, Indonesia
Mar 2023-Mei 2023 |
| • Oracle Primavera P6 Professional Fundamentals
<i>Learned project scheduling, resource allocation, and risk management using Primavera P6.</i> | Semarang, Indonesia
Mar 2023-Mei 2023 |
| • Hacktiv8 IBM SkillsBuild for AI and Cybersecurity
<i>Focused on AI development, machine learning, and deep learning, with additional exposure to cybersecurity fundamentals.</i> | Jakarta, Indonesia
Feb 2024 – Jul 2024 |
| • Purwadhika Data Science Digital Talent Incubator
<i>Hands-on experience in machine learning, Python, data visualization, and SQL, working on real-world data projects.</i> | Jakarta, Indonesia
Sep 2024 – Feb 2024 |

SKILLS AND INTEREST

Technical Skills

- **Programming & Data Science:** Python (Pandas, NumPy, TensorFlow, Keras, PyTorch, Flask), SQL, JavaScript (React.js), PHP (Laravel), HTML, CSS
- **Machine Learning & AI:** Deep Learning, Computer Vision, NLP, AI
- **Data Analysis & Visualization:** SQL, MySQL, SQL Server, PostgreSQL, Tableau, Excel, Power BI
- **Big Data & Cloud:** Oracle Cloud, Google Cloud, AWS

Soft Skills

- Leadership and teamwork ability
- Strong analytical thinking and problem-solving skills
- Effective communication (verbal & written)

- Strategic planning and initiative

Interests

- **Data Science & AI Applications** in business intelligence, automation, and predictive modeling
- **Machine Learning Research** focused on deep learning, computer vision, and NLP
- **Data Visualization & Storytelling** using Tableau, Power BI, and Python libraries
- **Web Development** in developing with Laravel framework

DATA SCIENCE PROJECT

Optimization Of U-Net Model on Image Segmentation Of Low Grade Glioma Brain Tumors – Onsite, Semarang, ID

Apr 2024 – Jun 2024

<https://www.kaggle.com/code/magisni/lgg-unet-optimization>

Image Segmentation

This research aimed to optimize the U-Net model for segmenting Low-Grade Glioma (LGG) brain tumors, focusing on hyperparameter tuning to achieve high-accuracy segmentation. The goal was to develop a robust and efficient segmentation approach that could enhance early diagnosis and genomic subtype identification, making the process faster, cost-effective, and free from inter-reader variability.

Key Contributions & Achievements

This research contributes to medical AI applications by improving tumor segmentation accuracy, which is crucial for automating brain tumor diagnosis and supporting precision medicine.

- Developed and optimized a U-Net-based segmentation model to improve tumor boundary detection.
- Achieved a 95% Dice Coefficient Score, demonstrating high segmentation accuracy.
- Utilized TCGA Low-Grade Glioma Brain Tumor Dataset for model training and evaluation.
- Implemented advanced deep learning techniques using Python, TensorFlow Keras, and Segmentation Models library.
- Explored various parameter optimizations to enhance the model's performance and reliability.

Depression Sentiment Analysis with Bi-LSTM Model –Remote, Jakarta, ID

Sentiment Analysis

May 2024 – Jun 2024

This project focused on detecting anxiety and depression in Indonesian social media users through AI-powered sentiment analysis. By leveraging Natural Language Processing (NLP) and deep learning, the goal was to classify depressive statements and provide early warning indicators for mental health support.

Key Contributions & Achievements

This project demonstrates the potential of AI in mental health monitoring, helping to detect early signs of depression through automated sentiment analysis.

- Developed and trained a Bi-LSTM sentiment analysis model to classify depression-related posts.
- Achieved a 68% F1-Score, balancing precision and recall for real-world applicability.
- Utilized the Twitter Depression Dataset from Kaggle for model training and evaluation.
- Implemented NLP techniques using Python, TensorFlow, and WordCloud for data processing and visualization.
- Successfully deployed the model on IBM Watson, making it accessible for real-time analysis.

NYC TLC Trip Data Analysis –Remote, Jakarta, ID

<https://medium.com/@magisni2001/data-analysis-on-taxi-trip-records-a8fe5e45b4b9>

Nov 2024 – Nov 2024

Data analysis and visualization

This project analyzed New York City Taxi & Limousine Commission (TLC) trip data to uncover critical insights into passenger behavior, revenue trends, and service optimization. By leveraging data-driven strategies, this analysis aimed to

enhance fleet distribution, maximize revenue, and improve passenger experience while also identifying factors influencing tipping behavior.

Key Contributions & Achievements

This project contributes to transportation analytics and urban planning, helping taxi operators make data-driven decisions for better public mobility services in NYC.

- Analyzed NYC Taxi & Limousine Commission (TLC) trip data to optimize fleet distribution, revenue, and customer experience using Python, SQL, geospatial analysis, and Tableau for visualization.
- Optimized Fleet Deployment: Increased taxis in high-demand areas (Manhattan, Queens) during peak hours and reduced presence in low-demand zones (Staten Island).
- Improved Passenger Experience: Recommended e-wallet integration, better app booking systems, and loyalty programs to increase engagement.
- Revenue Optimization: Suggested premium pricing for high-revenue routes and off-peak discounts to boost ridership.
- Encouraged Tipping: Proposed in-app tipping reminders and transparent fare structures to increase driver earnings.

Bike Sharing Regression Prediction –Remote, Jakarta, ID

https://github.com/magis-git/bike_sharing_regression_prediction

Dec 2024 – Dec 2024

Regression Prediction

Developed a predictive model to forecast daily bike rental demand based on environmental and seasonal factors, leveraging Python, Pandas, and machine learning algorithms.

Key Contributions & Achievements

This project demonstrated how machine learning can drive smarter decision-making in urban mobility.

- Developed a High-Accuracy Demand Prediction Model: Achieved an R^2 of 0.956 and MAPE of 22%, with CatBoost outperforming other models in capturing complex demand patterns.
- Optimized Model Performance: Implemented hyperparameter tuning (iterations=1400, learning_rate=0.06, depth=8) for better generalization and stability across different demand levels.
- Feature Impact Analysis: Identified peak hours, temperature, season, and weather conditions as the most influential factors in bike rental demand.
- Business Impact: Provided insights for fleet optimization, ensuring better bike allocation, reducing operational inefficiencies, and maximizing revenue opportunities.
- Strategic Recommendations: Suggested targeted marketing campaigns, improved demand predictions for low-demand scenarios, and enhanced model evaluation metrics for business-aligned accuracy.

Leveraging Few-Shot Learning for Automated Detection of UI Smells in Mobile UI Designs –Remote, Semarang, ID

<https://www.kaggle.com/code/magiskaggle/dan-few-shot-1-new>

Dec 2024 – Jan 2025

Deep Learning/AI

This research introduces an AI-driven approach for detecting UI smells—subtle design flaws that impact usability—in mobile applications. By leveraging few-shot learning, the model can identify inconsistencies in UI designs even with limited labeled data, making it a scalable solution for real-world applications. Utilizing deep learning-based feature extraction with EfficientNet-B3, MobileNet-V3, and CNNs, This innovation helps UX designers, app developers, and usability testers automate UI evaluation, ensuring intuitive and user-friendly interfaces without extensive manual analysis.

Key Contributions & Achievements

This project bridges the gap between AI and UX design, providing an efficient, scalable, and data-driven solution for automating UI quality assessment in mobile applications.

- Developed an AI-powered UI smell detection framework to enhance usability evaluation and mobile UI design analysis.
- Achieved 90.14% accuracy with EfficientNet-B3 in a 5-shot learning setup, outperforming existing state-of-the-art methods.
- Designed an Adaptive Subspace Classifier to improve classification performance in low-data scenarios.

- Implemented deep learning-based feature extraction using CNN, MobileNet-V3, and EfficientNet-B0-B5, enabling robust UI pattern analysis.
- Utilized the Enrico dataset to evaluate and validate the model across diverse mobile UI layouts.
- Automated the identification of UI inconsistencies, reducing the need for manual usability testing and speeding up UI/UX refinement processes.

WEB DEVELOPMENT PROJECT

Bina Amal Junior High School Student Discipline Management System – Remote, Semarang, ID

Jan 2023 – Apr 2023

https://github.com/magis-git/Sistem_Pengelolaan_Laporan_Tata_Tertib

Laravel Developer

Developed a Laravel-based system to streamline student discipline management at SMP IT Bina Amal. This platform enables teachers to efficiently record, track, and manage student violations, automating point calculations and generating comprehensive reports.

- Built a full-stack web application using Laravel and MySQL for seamless data management.
- Developed an automated point recapitulation system to track student violations.
- Implemented bulk input functionality for managing multiple student records efficiently.
- Integrated an Excel export feature for generating detailed disciplinary reports.

FAQ Management on Website id-career.center – Onsite and Remote, Semarang, ID

Jun 2023 – Nov 2023

<https://id-career.center/page/about-us>

Laravel Developer

Developed and implemented an FAQ management system for id-career.center, a job commerce platform connecting students and job seekers with companies.

- Built a dynamic FAQ management system using Laravel and MySQL for efficient content updates.
- Designed and implemented the website UI using Bootstrap and AJAX for a responsive and interactive experience.
- Developed an admin panel to manage FAQs, ensuring seamless content updates.
- Integrated version control and team collaboration via GitHub.

SISKA HAYATI (Sistem Keanekaragaman Hayati Kota Tasikmalaya) – Onsite, Tasikmalaya, ID

Dec 2024 – Mar 2025

https://github.com/git-magis/project_daun

Laravel Developer

Developed a web-based biodiversity information platform for the Environmental Department of the City of Tasikmalaya, supporting environmental education initiatives and digital transformation in managing urban flora.

- Built a dynamic biodiversity data system using Laravel and MySQL to document and manage tree and flower species across urban green spaces.
- Integrated interactive mapping using Leaflet.js with OpenStreetMap tiles to visualize biodiversity distribution and geolocation data.
- Implemented a QR code scanning feature enabling users to retrieve species information directly from physical markers placed on trees.
- Developed an admin panel for seamless management of species data, QR assignments, and map-based location tracking.
- Used GitHub for version control and collaborative development.