

RAMADHAN OKTOVIVIAN MUHAMMAD

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Deeply passionate about data science, machine learning, software engineering, and possesses a solid understanding of project management methodologies including Scrum, Agile, and SDLC. My academic journey has equipped me with a robust foundation in machine learning, honing skills in data analysis and model development

EDUCATION

Telkom University Bachelor, Informatics. GPA [3.94/4.00] Bandung, Indonesia	2021-now
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SMAN 2 Lamongan Natural Science (IPA), GPA [93.2/100] Lamongan, Indonesia	2019 - 2021
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EXPERIENCES

Data Science Research Group Telkom University Research Assistant <ul style="list-style-type: none">Collected and prepared over 1000 'Aksara' datasets for Optical Character Recognition (OCR), ensuring data integrity and relevance to research objectives.Conducted meticulous data preprocessing tasks, including data cleaning, normalization, and formatting, to optimize the accuracy of OCR algorithms.Collaborated with the research team to identify and address data inconsistencies and challenges, ensuring high-quality datasets for analysis.Assisted in developing and implementing data preparation pipelines, streamlining the process and enhancing efficiency in dataset acquisition and preparation.	2024
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Smartpath Project Manager Intern <ul style="list-style-type: none">Managed two projects simultaneously, focusing on KPI web project and main website improvement, ensuring alignment with organizational goals.Led two teams of five members each, fostering collaboration and ensuring timely project delivery.Facilitated the sprint process and maintained the momentum of the Scrum framework, ensuring efficient project execution.	2024
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Telkom University Teaching Assistant for Discrete Math and Algorithmic Strategy <ul style="list-style-type: none">Corrected tests for two classes, totaling over 80 students in the Strategic Algorithm class, ensuring accurate evaluation and feedback for student progressionCorrected tests for more than 40 students in the Discrete Mathematics class, maintaining consistency and fairness in grading practices.Delivered lectures four times throughout the semester, effectively conveying complex concepts in Strategic Algorithm and Discrete Mathematics to enhance student understanding and engagement.	2023 - 2024
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PROJECTS

Hotspot Detection in Whole-body Bone Scan via Deep Learning

2024

- Worked with a dataset of 600 images, annotating 50% of them as containing hotspots, crucial for training and evaluation purposes.
- Conducted annotation to label images as containing hotspots or not, ensuring accuracy and consistency in the labeling process.
- Led the construction of two U-Net++ models with distinct architectures to facilitate performance comparison.
- Designed each model considering parameters such as layer depth, filter size, and filter count per layer, optimizing architecture for effective feature extraction.

Whole-body Bone Scan Segmentation via Deep Learning

2024

- Contributed to the development and annotation of a dataset comprising plain whole-body bone scan images obtained from the Faculty of Medicine, Universitas Padjajaran.
- Selected a subset of the best segmented images from the pool of 600 for training purposes.
- Trained the selected subset using a semi-supervised approach, incorporating 36 manually segmented images for improved accuracy and reliability in the segmentation process.
- Implemented the U-Net architecture to ensure precise segmentation results, contributing to the development of accurate models for hotspot detection in bone scan images.

Predicting Serum Creatinine Levels in Heart Failure Patients with Neural Networks

2023

- Conducted comparative analysis between Support Vector Regression (SVR) and Artificial Neural Network (ANN) methods on a dataset comprising medical records of 299 patients with heart failure.
- Explored hyperparameters of both methods to optimize model performance, considering factors such as kernel type, regularization parameters, and neural network architecture.
- Utilized scikit-learn library for model training, leveraging its comprehensive set of tools for machine learning tasks.

Movie Recommender System using Matrix Factorization

2023

- Developed a recommendation system for four films utilizing a dataset containing 46,638 images.
- Implemented matrix factorization techniques to create a collaborative filtering model, enabling personalized recommendations based on user preferences and item characteristics.
- Conducted thorough experimentation to evaluate the impact of various parameters on the model's performance, including factors such as matrix size, regularization strength, and learning rate.

Data Online News Popularity Classification using Ensemble Learning

2023

- Implemented a classification task to determine the popularity level of news articles based on their features.
- Conducted preprocessing on a dataset comprising 39,644 instances, ensuring data quality and consistency for subsequent analysis.
- Utilized a decision tree algorithm as the foundation for the initial model, leveraging its interpretability and ease of implementation.
- Employed Adaboost (Adaptive Boosting) technique to enhance the predictive performance of the model, improving its accuracy and robustness in predicting news article popularity levels.

LABORATORY AND ORGANIZATION

Mobile Innovation Laboratory

2023 – 2024

Digital Business and Data Analytics Mentor

- Taught and guided over 40 students in study groups, fostering collaborative learning and skill development.
- Delivered weekly lectures throughout the semester, covering topics such as digital business, project management, and data analytics to provide students with comprehensive knowledge and practical insights.
- Provided mentorship and support to students, facilitating their understanding and application of concepts in real-world scenarios, thereby enhancing their proficiency in digital business and data analytics.

LEAD program by DINOTIS

2022 – 2023

Scrum Master

- Led the optimization of the 'Rate Card' feature for the Dinotis Mobile Application, ensuring its functionality and usability through thorough user research.
- Conducted user research to validate and refine the Rate Card feature, gathering feedback and insights to enhance user experience and meet customer needs effectively.
- Prepared and delivered weekly reports to the product owner, providing transparent updates on project progress, impediments, and accomplishments

SKILLS & OTHERS

Skills: Python, Pandas, Matplotlib, Tensorflow, Keras, C++, Java, Jira, MS Office, Github

Additional Skills: Data Analysis, Recommender System, Digital Image Processing, Machine Learning, Project Management, Scrum, Agile, Digital Business, Data Analysis, UI/UX research, Wireframing, Flowchart, User Flows Diagram, UML Diagrams, Use Case Diagram, Scenario Case Diagram.

HONOR - AWARDS

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| • Startup Grant: passed the funding in startup incubation | Bandung Techno Park |
| • 1st Winner: Web Development Competition | LLDIKTI Wilayah 4 |
| • 1st Winner: Business Plan Technology Euphoria | Sriwijaya University |
| • 2nd Winner: UI/UX Competition Technology Euphoria | Sriwijaya University |
| • 2nd Winner: DIGIX DIGICOMP Business Competition | University of Padjadjaran |
| • 2nd Winner: Crenovation Business Competition 2023 | Telkom University |
| • 2nd Winner: Crenovation x PKM Business Competition 2022 | Telkom University |
| • 2nd Winner: AISC UI/UX Competition | Telkom University |