



Farhan Muhammad Najib

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SUMMARY

As a graduate of Informatics Engineering from UIN Jakarta with a 3.78 GPA, I have specialized in DevOps, Machine Learning, and Data Analyst. I am proficient in Python, Terraform, TensorFlow, Sklearn, Pandas, Numpy, Seaborn, and various DevOps automation tools. I hold certifications in Linux System Administration, CI/CD Implementation, Basic Data Visualization, and Machine Learning Beginner from Dicoding Indonesia. Additionally, I am a certified Professional Data Analyst from DataCamp. My thesis and key projects demonstrate my practical skills, such as the use of Terraform and Kubernetes in cloud disaster recovery, which resulted in a 190% reduction in recovery time, and the Customer Churn Prediction project, which utilized Neural net, SMOTE, and Ensemble methods to achieve a test data accuracy of 0.82. These experiences make me a strong candidate for roles requiring expertise in DevOps and Machine Learning.

EDUCATION

Bachelor's degree in Informatics Engineering

State Islamic University Syarif Hidayatullah • Ciputat, South Tangerang City • 2023 • 3,78

- Contributed as an active member of the Informatics Engineering Student Association.
- Secured the Cloud Developer Scholarship Program with content from Amazon Web Service by dicoding.com.
- Attained the DevOps Intermediate Scholarship from the DBS Foundation Coding Camp 2023 Program.
- Achieved the Indosat Ooredoo Hutchison (IDCamp) 2023 Scholarship Program on the Beginner-Machine Learning Developer Learning Path.
- Honored with a Certificate of Appreciation from ASESI LIPPA as the 3rd Winner of the Sharia Economic Hackathon 2021 at the National Level.

EXPERIENCE

UI/UX Designer Internship

Kampoeng Koding

September 2022 - January 2023, Jakarta

- Led the development and launch of the company's responsive and optimized website, demonstrating proficiency in managing complex technical projects and crafting user-centric ML applications.
- Deciphered complex client needs and transformed them into effective design solutions, showcasing problem-solving skills vital for troubleshooting and optimizing DevOps pipelines and in Machine Learning and Data Science.
- Promoted a DevOps culture through effective collaboration with the development team, ensuring accurate implementation of designs and fostering a culture akin to managing ML model development.
- Ensured punctual and budget-compliant project delivery, reflecting efficiency in managing DevOps pipelines, reducing downtime, and supervising the development of ML models.
- Applied understanding of user needs to develop user-centric applications, indicating an ability to incorporate user feedback into system improvements and to develop ML-driven UX improvements.

Data Management Officer

Informatics Student Association at UIN Syarif Hidayatullah

June 2020 - December 2020, Jakarta

- Maintained a 95% accuracy rate in student data collection at the State Islamic University Syarif Hidayatullah, Jakarta, ensuring the integrity and reliability of data for further analysis.
- Rectified 30% of system data errors, transforming complex data issues into effective solutions, thereby improving the overall data quality.
- Safeguarded data privacy, implementing stringent data access protocols and granting access only to authorized personnel, ensuring compliance with data privacy regulations.

PROJECTS

Rock, Paper, Scissors Recognition Web Application Using DevOps

Personal Project • <https://bit.ly/DevOps-RPS> • November 2023

- Automated the Continuous Integration and Continuous Deployment (CI/CD) process using GitHub Actions, reducing release time from 1 hour to 9 minutes.
- Crafted a comprehensive YAML file outlining the steps for the CI/CD pipeline, including Docker image creation and deployment, resulting in a 94% efficiency increase in the deployment process.
- Ensured robust integration with triggers set for every push or pull request to the main branch on GitHub, reducing integration errors by 15-20%.
- Leveraged the high-performance, secure, and scalable Oracle Cloud Infrastructure for server provisioning.

Rock Paper Scissors Image Recognition

Personal Project • <https://129.213.60.252.nip.io:1000> • November 2023

- Utilized a Kaggle dataset of 2,188 images to train a model to recognize rock, paper, scissors gestures.
- Applied data augmentation techniques to create new images and increase the robustness of the model.
- Leveraged a pre-trained VGG19 model and added a custom classifier layer to Produce final predictions for the three classes of gestures.
- Fine-tuned the model using feature extraction and fine-tuning strategies, achieving an accuracy of 99% on the validation set.
- Developed a web application that allows users to detect rock, paper, scissors hand gestures using a computer.
- Effectively validated the model's robustness and reliability through rigorous testing on 5 new images, yielding consistent and accurate results.

Customer Churn Prediction

Personal Project • https://bit.ly/Churn_Prediction • November 2023

- Constructed a Neural Network model with four layers of neurons, batch normalization, and dropout techniques, achieving an accuracy of 0.81 on the test data.
- Applied the SMOTE technique to the training data, improving the model's accuracy to 0.82.
- Implemented an Ensemble method combining the Neural Network and XGBoost models, maintaining a high accuracy of 0.81.
- Achieved higher recall of 0.65 and f1-score of 0.63 for identifying churned customers correctly with the Neural Network model with SMOTE.
- Reduced more false positives with the Neural Network model with SMOTE and Ensemble, achieving a precision of 0.61 for the positive class, demonstrating the ability to balance between precision and recall.

Provisioning of Disaster Recovery with Terraform and Kubernetes: A Case Study on Software Defect Prediction (Thesis Publication)

State Islamic University Syarif Hidayatullah • <https://doi.org/k59b> • March 2023

- Conducted an in-depth study on the application of Infrastructure as Code (IaC) for cloud disaster recovery solutions.
- Simulated a disaster event and analyzed the efficiency of Terraform in constructing complex infrastructure, resulting in a 235% decrease in the time required compared to manual manufacturing.
- Explored the utilization of Kubernetes for software deployment, leading to a 530% reduction in deployment time.
- Enhanced disaster recovery and maximized resource utilization using Terraform and Kubernetes, slashing recovery time by a staggering 190%.
- Published the research in the 2023 10th International Conference on Electrical Engineering, Computer Science and Informatics (EECSI).
- The project available on Github (<https://bit.ly/Terraform-Automation>).

Sales Data Analysis for Optimal Sales Strategy

Data Camp Certification Project • <https://bit.ly/SalesDataAnalysisforOptimalSalesStrategy> • January 2024

- Fortified data integrity across 15,000 sales transactions.
 - Pinpointed 'Email' as the optimal sales strategy through in-depth analysis.
 - Instituted a key performance metric (Average Total Revenue per Weeks), benchmarking at approximately \$234,018 per week.
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CERTIFICATIONS

AWS Certified Solutions Architect - Associate.

Amazon Web Services • 2024

- Earned AWS Cloud Solution Architect Associate certification, demonstrating advanced knowledge in designing distributed applications and systems on the AWS platform.
- Proficient in architecting and deploying secure and robust applications on AWS technologies.
- Managed to design and deploy dynamically scalable, highly available, fault-tolerant, and reliable applications on AWS.
- Skilled in selecting appropriate AWS services to design and deploy an application based on given requirements.
- Capable of migrating complex, multi-tier applications on AWS.
- Implemented cost-control strategies for AWS deployments.
- Experienced in estimating AWS costs and identifying operational cost control mechanisms.

DevOps Intermediate Scholarship from the DBS Foundation Coding Camp 2023 Program

Dicoding Indonesia • 2023

- Earned the DevOps Intermediate Scholarship from the prestigious DBS Foundation Coding Camp in 2023.
- Mastered a comprehensive range of DevOps culture, practices, tools, and methodologies, enhancing project efficiency and deployment speed.
- Gained proficiency in network computer systems.
- Became a Linux System Administrator.
- Gained hands-on experience with continuous integration, continuous delivery, and infrastructure as code.
- Collaborated on complex projects, demonstrating exceptional teamwork and problem-solving skills.
- Developed proficiency in cloud platforms and containerization technologies, driving innovation and scalability.
- Implemented automated testing and monitoring procedures, ensuring high-quality software deployment.
- Contributed to the creation of robust and secure DevOps pipelines, optimizing software delivery and reducing time to market.

Indosat Ooredoo Hutchison (IDCamp) 2023 Scholarship Program on the Beginner-Machine Learning Developer Learning Path.

Dicoding Indonesia • 2023

- Data Visualization Mastery: Acquired proficiency in basic techniques for visual data representation, enabling effective storytelling and data presentation.
- Python Programming Proficiency: Established a solid foundation in Python programming, a crucial tool for data science and machine learning.
- Machine Learning Fundamentals: Formulated and deployed a machine learning model with an accuracy of 98%.
- Industry-Standard Tools: Utilized industry-standard tools such as Google Sheets for data visualization, and Python libraries like ScikitLearn and TensorFlow for machine learning, completing over 30 hours of practical work.
- Measured Success: Successfully completed the IDCamp 2023 Scholarship Program on the Beginner-Machine Learning Developer Learning Path, demonstrating a commitment to continuous learning and professional growth.

Professional Data Analyst Certification

Data Camp • 2024

- Python and SQL Mastery: Established a robust foundation in Python and SQL, a critical language for data analyst. Gained proficiency in Python libraries such as pandas, numpy, and Seaborn, also SQL queries.
- Data Cleaning and Preprocessing: Conducted comprehensive data inspection and cleaning on a dataset of 15,000 sales transactions, fortifying data integrity. Gained skills in handling missing data, outliers, and data transformation.
- Exploratory Data Analysis (EDA): Performed in-depth exploratory data analysis, gaining insights into data distribution, correlation, and statistical properties. Utilized visualization tools to present findings effectively.
- Performance Metrics: Instituted 'Average Total Revenue per Weeks' as a pivotal metric for tracking future business performance, with an initial benchmark of approximately \$234,018 per week.
- Industry Recognition: Earned the Professional Data Analyst Certification from DataCamp, an industry-recognized qualification that proves the skills needed to confidently analyze data using a range of technologies.
- Real-World Skills: Demonstrated proficiency in data management, exploratory analysis, and statistical experimentation using SQL and Python.
- Job-Ready Skills: Proved the ability to navigate data systems, extract meaning from data, and efficiently communicate

findings.

SKILLS

DevOps: Terraform, Kubernetes, Docker, Jenkins, Github, Github Action, Linux

Machine Learning : Python, SQL, Tensorflow, Scikit-learn, Oracle, AWS, GCP, Excel

Soft Skill: Problem Solving and Critical Thinking, Detail-oriented skills, Time-management and organizational skills, Adaptability, Verbal and written communication skills, Communication, Flexibility, Leadership, Decision making, Passion, Resilience
