

SADDAM ADITYA HARTANTO

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Mathematics graduate with a solid foundation in mathematical concepts and a passion for transforming data into actionable insights. I am enthusiastic about applying my analytical skills and machine learning expertise in a dynamic role as a Data Analyst, Data Scientist, or Machine Learning Engineer. My dedication is highlighted by doing various projects and participating in competitions. Excited about leveraging mathematical principles to solve complex problems and contribute to innovative projects that make a real-world impact.

Education

Universitas Gadjah Mada – Sleman, Indonesia

Sep 2020 - Oct 2024

Bachelor of Mathematics, 3.53/4.00

- Completed thesis research on stochastic programming and metaheuristic algorithms, developing innovative optimization approaches for solving complex mathematical problems
- Implemented Fast Fourier Transform (FFT) algorithms for signal processing and conducted comprehensive sentiment analysis of 2024 election data as key coursework projects
- Led and organized LMNAS 34, successfully managing a national mathematics competition with 3,500 student participants across Indonesia
- Spearheaded Semnastika 15, a national seminar focused on cryptography and cybersecurity, coordinating with university faculty and external stakeholders
- Actively contributed to campus community through Himatika UGM, providing academic support and organizing educational events for mathematics students

SMA Negeri 1 Tumpang – Malang

Jul 2017 - May 2020

Senior High School, Science Major

Work and Project Experience

Abhimantra Sistem Solusindo – Jakarta

Dec 2024 - Now

AI Engineer

AI Engineer specializing in computer vision and large language models, developing machine learning solutions for mining operations.

- Developed and implemented an automated AI system for analyzing core logging data to determine RQD values, improving efficiency of geotechnical assessments for ANTAM mining operations.

Pediatric Research Office (PRO) – FKKMK Universitas Gadjah Mada

Feb 2024 - Dec 2024

Data Analyst

Carry out research in accordance with the principles of Good Clinical Practice (GCP), quality, and contribute to improving children's health and welfare.

- Conducted bibliometric analysis using R on 500+ research papers about "Wastewater-Based Epidemiological Monitoring", identifying key research trends and top 10 most influential authors in the field
- Analyzed Delphi Survey data from 50+ public health experts, achieving 85% consensus on key recommendations for implementing wastewater surveillance systems in Indonesia
- Developed predictive models using GLM-Poisson regression that revealed a 15% increase in mortality risk associated with every 10 $\mu\text{g}/\text{m}^3$ rise in PM2.5 levels in Yogyakarta
- Designed and executed SQL queries to clean and analyze healthcare datasets of 10,000+ patient records

PT Global Data Inspirasi (Datains) – Yogyakarta

Jul 2022 - Jan 2023

Internship Artificial Intelligence Engineer

Datains (legally known as PT Global Data Inspirasi) provides data analysis services, which include data collection, data wrangling, data integration, data processing, data analysis & data visualization. This service is available in LKPP Indonesia e-Catalog. My jobdesk as an internship includes:

- Learned Machine Learning, Deep Learning, NLP (Sentiment Analysis and NER)
- Built sentiment analysis models related to the 2019 election (RNN)
- Led a team to process thousands of product data
- Built Named Entity Recognition model from thousands of product data with Spacy

Academic Grader – Universitas Gadjah Mada

Aug 2023 - Dec 2023

Inverse Problem Class Grader

Assist lecturer for grading in inverse problem class. My jobdesc as academic grader includes:

- Learned inverse problem, forward problem, ill-posedness, regularization, and computational techniques
- Graded 45 student's assignments and reports

CommonLit - Evaluate Student Summaries – Kaggle

Jul 2023 - Oct 2023

Machine Learning Competition

Competition host CommonLit is a nonprofit education technology organization. CommonLit is dedicated to ensuring that all students, especially students in Title I schools, graduate with the reading, writing, communication, and problem-solving skills they need to be successful in college and beyond. What I did in this competition:

- Tried to learn Large Language Model problem
- Understanding all the meanings contained in the student summaries dataset
- Built sentiment regression from student summaries dataset with Transformer (Debertav3)

RISTEK Datathon 2023

Aug 2023

Machine Learning Competition

In this competition, participants were challenged to make time series forecasting of the average speed of vehicles on a road. In this competition my team got 4th place on the private leaderboard. What I did in this competition:

- Sought and scrapped additional data from other sources
- Created a time series model to predict vehicles speed
- Evaluated and fine tuned of the model using XGBoost so as to obtain accurate results

Bangkit Academy led by Google, Tokopedia, Gojek, & Traveloka

Feb 2023 - Jul 2023

Machine Learning Learning Path Student

Bangkit is a career readiness program that aims to produce high-caliber technical talent for world-class Indonesian technology companies and startups, fully supported by Google, GoTo, and Traveloka. The things I learned and worked on include:

- Learned Machine Learning and Deep Learning with TensorFlow
- Contributed to create FokusIn (capstone project) as ML Engineer
- Led Machine Learning team to build attention span model (RNN) in FokusIn to create focus detection feature

Organizational and Committee Experience

LMNas 34 and Semnastika 15 – Universitas Gadjah Mada

Feb 2023 - Des 2023

Chairman

- Fully responsible for the implementation of LMNas 34 and Semnastika 15
- Coordinated with Himatika, UGM Mathematics Undergraduate Program, and outside parties if needed.
- Successfully held Semnastika 15 with the theme of cryptography and cybersecurity
- Successfully held LMNas 34 with 3500 student participants spread throughout Indonesia

LMNas 33 and Semnastika 14 – Universitas Gadjah Mada

Feb 2022 - Des 2022

Vice Chairman

- Organized and Responsible for LMNas 33 (Operational, Question, Logistic, and Secretarial Divisions)

Himatika – Universitas Gadjah Mada

Feb 2021 - Des 2021

Staff - Education Department

- Provided tutorials for first year mathematics student
- Created and held paper training event for active math student

LMNas 32 and Semnastika 13 – Universitas Gadjah Mada

Feb 2021 - Des 2021

Staff - Operational Division

- Assisted the Coordinator to set up and organize the exam website
- Created and held paper training event for active math student

Skills

Technical Skills:

- Programming Languages: Python, R, SQL
- Machine Learning: TensorFlow, PyTorch, scikit-learn
- Data Analysis: pandas, numpy, SQL (PostgreSQL)
- Data Visualization
- Mathematics: Computational Mathematics, Mathematical Modeling
- Other Tools: LaTeX, Git

Soft Skill : Leadership, Communication, Analytical and Critical Thinking, Adaptability

Language : Indonesian (native), English (bilingual)

Certifications

• Structuring Machine Learning Projects

: Coursera • 2023 • Credential ID MY2HTYZS2EUQ

- **Mathematics for Machine Learning**
- **Machine Learning Specialization**
- ***DeepLearning.AI TensorFlow Developer Specialization***
- **TensorFlow: Data and Deployment Specialization**
- **TensorFlow: Advanced Techniques**

: Coursera • 2023 • Credential ID 3VJD9HKE26BV
: Coursera • 2023 • Credential ID W8JUNKWHMWNU
: Coursera • 2023 • Credential ID 5HNT92B4M4RX
: Coursera • 2023 • Credential ID NUH2WUEC6DJE
: Coursera • 2023 • Credential ID SRM4E2DA96C9