

Hayyu Ilham Wicaksono

Experienced as Data Scientist and also software development. Core skills include Python and Flutter programming, Machine & Deep Learning, SQL, extrapolating data, and providing actionable insights aligned with computer science, modeling, and visualization. Highly passionate about turning data into knowledge and actionable insights.

PROFESSIONAL EXPERIENCE

Gadjah Mada University

Research Assistant, Data Scientist

Mar 2022 – Feb 2024

Focus areas: Natural Language Processing (NLP), Machine learning (ML), Deep Learning, Artificial Intelligence (AI) and Data visualization.

Successfully managed team and collaborated with 3 institutions (Gadjah Mada University, Universitas Terbuka, and University of Indonesia) across different departments or organizations to implement the system to handle problems about complex data analytics, optimization systems, and predict model with NLP concept. The Project Research solved includes:

- Automation of Essay System for Scoring Essay Assignments in UT.
 - Managed the student answer of more than 9000 unstructured data each year, to help each lecturer read the answers from students in different formats. Led redesign and normalization of text in a single system.
 - Prototyped and developed an automated scoring essay model to increase the efficiency of the lecturer in grading many variety of essay answers. Implemented with machine learning, deep learning, and artificial intelligence method.
 - Deploy streamlit webapp to visualize results calculate essay scoring and CRUD data for students and lecturer. Saving time and easy use by the lecturer to view answers and prediction scores from students.
 - Successfully obtaining funding for further development from Kemristekdikti in the following year.
- Information Retrieval for Early Detection of Disease using Semantic Similarity for Medicine Department
 - Designed and optimized a data augmentation model to diagnose a disease by semantic similarity using retrieval principles. Led to a 20% increase accuracy of the early detection of disease system.
 - Develop a recommendation or simple information retrieval system with questions about similar symptoms in patients to help with early diagnosis of a disease.
- Aspect Based Sentiment Analysis Optimization using VADER and SMOTE for User Reviews
 - Designed and optimized sentiment analysis methods using machine learning with sentiment segmentation and oversampling imbalance. Led to a 8.9% increase accuracy from the previous methods.
 - Successfully helping the developer easily analyzed sentiment complex data reviews in mobile game competitors to increase the

PROFILE

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SKILLS

Tools and Frameworks:

Python (Pandas, NLTK, Numpy, Scikit-learn, Streamlit),
C++, Flutter, SQL, and GIT

Technique:

Machine & Deep Learning (Regresion, Clustering, SVM, Bert, TensorFlow), **Artificial Intelligence** (Natural Language Processing (NLP), computer vision, and recommendation system), **Big Data** (BigQuery, Elasticsearch, Docker), and **Data analytic tools** (Octoparse, Open Refine, Knime, Orange, and Tableau).

Others:

Communicative, Teamworking ability, and Leadership.

EDUCATION

Gadjah Mada University

Master of Computer Science
Aug 2021 - Aug 2023
Grade: 3.77/4.00

- **Awards:** Awarded best model prototype startup in aquaculture tech competition (Hack A Farm 2021)

quality of the game from the player's point of view. Developed a model to obtain specific sentiment to each aspect quality of the game.

Gadjah Mada University

Mobile Developer

Aug 2021 – Dec 2021

- Designed and developed the remote digital control mobile app of the GeNose C19 production monitoring system from PT.YTPI to migrate from the web app. It helped integrate and saved time for follow-up for multiple divisions.
- Analyzed system performance to control each feature used by the user.

Ngebis.com, PT Bismadata Karya Gemilang

Mobile Developer

Mar 2020 – Feb 2021

Ngebis is an online local bus transportation booking platform for accommodations in each city. It accommodation to control the position and waiting for the bus arrival time, for convenience and certainty customers

- Managed a team of mobile developers.
- Prototyped and developed the Mobile app using Flutter for Android & IOS. Successfully obtained good feedback and more than 1,000 users downloaded the app in a month.
- Handle, normalize, integration data users for customers and Mitra PO bus.
- Analyzed analytics system performance and measured its impact on users

SCHOLARSHIP & CERTIFICATIONS

NVIDIA Deep Learning Institute

Oct 2021

- Accelerated End-to-End Data Science Workflows.
- Fundamentals of Accelerated Computing with CUDA Python.
- Improved Deep Learning Methodology.

VOLUNTEERS

- CRAFT – State University of Yogyakarta (Speaker in Webinar about Data Analysis with Python) (Oct 2023)
- Data Science Talk & Workshop Series – Center of Data Science UII (Committee and Data science Instructor) (Nov 2019)

PUBLICATIONS

- Wicaksono, Hayyu Ilham, et al. "Information Retrieval for Early Detection of Disease." IJCCS (Indonesian Journal of Computing and Cybernetics Systems). Vol 17. No 1. (2023)
- Wicaksono, Hayyu Ilham. "Internet Quality Measurement of Mobile Broadband Access." AUTOMATA. Vol 1. No 1 (2020)