

# Firhan Imam Haekal

[firhanimamhaekal@gmail.com](mailto:firhanimamhaekal@gmail.com) | [Website](#) | [LinkedIn](#)

## SUMMARY

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Computer Science student trusted by lecturers to assist in research activities and by IT Community members as a leader, with a high passion for Artificial Intelligence and Computer Networks, aiming to combine both worlds to solve complex problems in the real world. In team-based initiatives, as a leader or team player, results will be better than solo projects based on my experience. Actively seeking hands-on projects to sharpen my skills in both Data Science and Artificial Intelligence

## WORK EXPERIENCE

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### National Research and Innovation Agency (BRIN)

February 2024 - August 2024

#### Data Science and Information Research Center Intern

- Researched and optimized Indonesian text preprocessing framework for social media text data through information retrieval techniques and developing the corpus dataset based on the research ([DOI](#))

### BASIC COMPUTING COMMUNITY – *IT Community*

September 2023 - January 2024

#### Head of Data Science Department

- Led 20+ Data Scientists consisting of Undergraduate Students to improve their skills in Data Science, Machine Learning, Deep Learning and contribute to BCC as a community
- Automated candidate document downloading, sorting, and management during administrative selection of BCC open recruitment consisting of over 150 candidates with more than 400 documents of CV, Portfolio, and Certificates
- Designed data science department curriculum, Data Science and Data Analyst workshops, and programs for one year

### Faculty of Computer Science, Brawijaya University

February 2023 - Present

#### Information Centric Network Laboratory (ICN) ML Practitioner

- Researched and deployed a Machine Learning model to predict water potability

### Ministry of Education, Culture, Research, and Technology (KEMENDIKBUD)

September 2023

#### Head of IT Division GEMASTIK XVI

- Led a team of 11 Undergraduate Students to manage LAN connections of 50+ GEMASTIK team members
- Bridging communication between Faculty Staff and the IT Division Team to ensure the efficiency of network infrastructure preparation

### Faculty of Computer Science, University of Brawijaya

September 2022 - December 2024

#### Teaching Lab Assistant

- Taught 90+ Undergraduate Informatics Engineering and Education of Information Technology Students about Algorithms, Data Structure, and Basic Programming
- Taught Undergraduate Informatics Engineering Students about Artificial Neural Network (ANN) algorithms including Multilayer Perceptron, Backpropagation, and Learning Vector Quantization

## PROJECTS AND AWARDS

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### Water Potability Prediction, 2024 ([Github](#))

*Machine Learning, Data Scientist*

- Deployed Docker-based machine learning service for water potability prediction using MLflow for model tracking, MinIO as S3 storage for artifact collection, and gRPC for model-server communication

## **Top 12 National Finalist BPTI Pusat Prestasi Nasional Statistika Ria dan Festival Sains Data (Satria Data) - Indonesia Investment Laws And Regulations Alignment Examiner Project, 2023**

*Machine Learning, Data Scientist*

- Passed preliminary stage competing with 343 teams of 21 Universities across Indonesia in the Big Data Challenge category, resulting in top 12 National Finalist
- Developed Indonesia Investment Laws And Regulations Alignment Examiner model for Satria Data Finalist Submission with other team members from Brawijaya University.
- Prepared training data by processing 111 investment law documents using Regex and Natural Language Toolkit (NLTK)

## **Finalist of IPB GAMMAFEST Data Science Competition, 2023**

*Machine Learning, Data Scientist*

- Tested models on water feasibility classification problem. Models including Stacked Ensemble, CatBoost, AdaBoost, XGBoost, Random Forest, and Decision Tree

## **Learning Vector Quantization Model From Scratch, 2023 ([Github](#))**

*Machine Learning, Data Scientist*

- Developed Learning Vector Quantization model from scratch as a submission for the Artificial Neural Network Course

## **Introduction to Machine Learning: Machine Learning Models From Scratch, 2023 ([Github](#))**

*Machine Learning, Data Scientist*

- Implemented 4 models from scratch to compare each model performance, including K-Nearest Neighbor, Naive Bayes, Decision Tree (Gini Index), Support Vector Machine

## **Water Feasibility Predictor, 2023 ([Streamlit](#))**

*Machine Learning, Data Scientist*

- Deployed Stacked Ensemble Model after multiple comparisons as a submission for GAMMAFEST Finalist Competition

## **Hackerrank Cleaner, 2022 ([Streamlit](#))**

*Text Mining, Data Scientist*

- Developed HackerRank score input cleaner to help other laboratory assistants grade Undergraduate Students based on the HackerRank Platform

## **Top 10 Participants of Data Competition ISFEST UMN, 2022**

*Machine Learning, Data Scientist*

- Passed preliminary stage as top 10 Finalist after analyzing, visualizing, preprocessing given data and developed machine learning model for the given problem

## **Top 10 Data Analytics Competition Finalist FIND IT UGM, 2022**

*Machine Learning, Data Scientist*

- Passed preliminary stage as top 10 Finalist after analyzing, visualizing, preprocessing given data and developing machine learning model for the given problem

## ORGANIZATION, COMMITTEE, AND VOLUNTEERING

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### **Head of Data Science Department at Basic Computing Community (BCC) FILKOM 2023**

Malang, Faculty of Computer Science (FILKOM) University of Brawijaya

### **Algorithm and Data Structures Mentor at Klinik Koding Event (Basic Computing Community) 2022**

Malang, Faculty of Computer Science (FILKOM) University of Brawijaya

### **Study Club Chief Executive at Eksekutif Mahasiswa Informatika 2022**

Malang, Brawijaya University

## SKILLS AND INTERESTS

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- **Languages:** Bahasa Indonesia (Native), English (Intermediate)
- **Tools:** Visual Studio Code, Google Collaboratory
- **Interests:** Data Science, Data Analyst, Machine Learning, Deep Learning