# Huwaida Rahman Yafie

Student at Dian Nuswantoro University, Semarang, Indonesia

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#### **Research Interest**

Software Engineering

Implementing ML/AI to develop tools and techniques for automated and interactive debugging and software testing.

#### Education

## Dian Nuswantoro University, Bachelor in Computer Science

2022 – 2026 (Expected)

3rd Best Innovation University in Indonesia, 2024<sup>[1]</sup>

Overall GPA: 3.95/4.0Major GPA: 3.96/4.0

- Excel Students of Department of Computer Science Year 2022. One among 50 students selected from 800+ students of Year 2022.
- Coursework: Software Engineering (A), Object-Oriented Programming (A), Software Requirements Engineering (A), Database Systems (A), Machine Learning (A), Data Mining (A), Web-based Programming (A), Advanced Web Programming (A)

## **Research Experience**

# University of Chicago-Indonesia System And AI Research Training Program (SYAIR)

Jan. 2025 - Jun. 2025

- International research training program (remote) instructed by Prof. Haryadi Gunawi of University of Chicago
- Consisting of only 50 selected computer science students across top universities in Indonesia.
- Intensive research training on Computer Science areas. Including finding research area and communities, skimming and reading a large amount of papers, reproducing multiple experiments from top-tier papers. Spend 20+ hours a week.
- Covered 20+ papers from ICSE, FSE, ISSTA, and ASE
- Downloaded and reproduced experiments from paper artifacts, analyzed and studied the code and tools used.

### Experience

#### **Computer Lab. Teaching Assistant**

Mar. 2024 - Jan. 2025

Faculty of Computer Science – Dian Nuswantoro University, Indonesia

- Assisting lecturers during practical classes in the Computer Lab for Algorithm and Data Structures (C++), Database Systems (MySQL), Intro to Programming (C++), Intro to Computing (Data Visualization, HTML).
- Assisting 4 classes a week with up to 40 students in each class.

#### **Teaching Assistant**

Sept. 2024 – Jan. 2025

Department of Computer Science - Dian Nuswantoro University, Indonesia

- Teaching and grading for the Web Development Career Certification class.
- Facilitates and troubleshoots students with difficulty during building the "PHP-based Polyclinic Web App" capstone project.
- Assisting 2 classes with 25 senior year students in each class.

## Front-end Web Programmer

Sept. 2024 - Jan. 2025

AI Research and Development Group - Dian Nuswantoro University, Indonesia

- Building user-friendly, interactive and intuitive interface for Academic Chatbot web app.
- Encouraging to learn new technologies (i.e. frameworks) in a quick amount of time.

# **Technologies**

Languages: Python, Java, PHP, SQL, JavaScript, TypeScript

Data and Cloud: Apache Spark, Google BigQuery, Docker, Chameleon, Google Cloud Platform,

AI/ML Platforms and Libraries: TensorFlow, Keras, Pandas, scikit-learn, Matplotlib, seaborn, pickle, librosa

Web Development: React, Next.js, Laravel, CodeIgniter, Streamlit, Tailwind CSS, Bootstrap

Misc: Cisco Packet Tracer

# **Projects**

JAWS: Java Web Server 2024

- Java-based HTTP local web server desktop app.
- Supports custom port number and web directory.
- 300+ Lines of Codes (LOC)
- Tools used: Java, Gradle, JavaFX Scene Builder, Bootstrap

### **Bngky: Campus Academic Chatbot Web App**

2024-2025

- Front-end Web Programmer for Campus Academic LLM Chatbot web app (team project).
- Demands high interactivity and responsiveness of user-friendly messaging experience with the bot.
- 1200+ Lines of Code (LOC).
- Tools used: Next.js (TypeScript), FastAPI, React, Tailwind CSS, daisyUI, TanStack Query

## **Evoku: E-voting UDINUS**

2023

- Cryptography final project about web-based electronic voting.
- Secures the integrity of individual voting data with implementation of SHA algorithm to generate special tokens.
- Supports proactiveness of voters by providing interface to check vote integrity by using the special token.
- 700+ Lines of Codes (LOC)
- Tools used: Laravel, Bootstrap

# EmoReg: Audio-based Emotion Recognition Web App

2024

- A machine learning-powered web app to help voice actors in training.
- Trained the model based on RAVDESS and TESS dataset to recognize emotion types in audio files resulting in accuracy of 86.2.
- 600 Lines of Codes (LOC)
- Tools used: Python, librosa, TensorFlow, Keras, Streamlit

## Awards

# **Excel Students of Department of Computer Science of Dian Nuswantoro** University

Sept. 2023 - 2026

• One of 50 students selected from over 800 in the Department of Computer Science.

#### References

### Prof. Haryadi Gunawi

University of Chicago-Indonesia System and AI Research (SYAIR) Instructor Professor at the Department of Computer Science, University of Chicago

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## Adhitya Nugraha, S.Kom., M.CS.

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