

Muhammad Haekal Muhyidin Al-Araby

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github.com/muhhae

Education

Sepuluh Nopember Institute Of Technology Aug 2022 – 2026 (Expected)
B.Eng. in Computer Engineering

- GPA: 3.65/4.0
- Major GPA: 3.8/4.0
- Coursework: Operating System (A), Computer Architecture (A), Computer Security (A), Embedded System (A), Computer Network (AB), Database (AB)

Experience

Computer Engineering Department & Faculty of Medics, Sepuluh Nopember Institute of Technology Sept 2024 – Feb 2025
Backend Software Engineer

- Designed, implemented, and deployed a system for efficiently storing digital images of cancer cells.
- Wrote 900+ LOC.

Computer Engineering Department, Sepuluh Nopember Institute of Technology & SDDPI Komdigi July 2024 – Jan 2025
Backend Software Engineer

- Designed and implemented system for efficiently finding anomaly or wrong data in SDPPI database.
- Wrote 1000+ LOC.

Computer Engineering Department, Sepuluh Nopember Institute of Technology Aug 2024 – Jan 2025
Teaching Assistant for Computer Security

- Graded Mid-Term and Final Exam of 2 classes for the total of more than 70 students.

Computer Engineering Department, Sepuluh Nopember Institute of Technology Aug 2024 – Dec 2024
Teaching Assistant for Basic Programming

- Oversaw 8 session of practicum consist of more than 25 students each.
- Gave additional assistance for 6 groups consist of 5-6 students each.
- Graded the work of over 30 students.

Computer Engineering Department, Sepuluh Nopember Institute of Technology Jan 2024 – Jun 2024
Teaching Assistant for Digital Circuit

- Oversaw 4 session of practicum consist of more than 30 students each.
- Gave additional assistance for 9 groups consist of 3-4 students each.
- Graded the work of over 27 students.

Computer Engineering Department, Sepuluh Nopember Institute of Technology Aug 2023 – Dec 2023
Teaching Assistant for Basic Programming

- Graded the Final Exam of over 70 students.

Projects

Interpreted Programming Language
github.com/muhhae/interpreted-lang-py

- Implemented core programming language feature such as variable, arithmetic, function, and class.
- Designed and implemented custom IDE with working syntax highlighting and interactive shell.
- Wrote 1600+ LOC.

- Tools Used: Python, CustomTKinter.

Tetromania Castle

github.com/muhhae/tetromania-castle

- Gothic themed tetromino game.
- Implemented 2D collision detection.
- Wrote 1200+ LOC.
- Tools Used: C++, SFML, Premake5.

PingPong Game

<https://github.com/muhhae/esp32-pingpong>

- PingPong Game written in C++ for ESP32 and dotmatrix display.
- Implemented how dotmatrix displays every frame in the game.
- Implemented music player using buzzer.
- Wrote 1400+ LOC.
- Tools Used: C++, PlatformIO, ESP32, MD_Parola, MD_MAX72xx.

Lorem Ipsum

github.com/muhhae/lorem-ipsum

- Web application for sharing random image.
- Wrote 2000+ LOC.
- Tools Used: Go, MongoDB, Echo, Templ, HTMX, TailwindCSS.

Technical Skill

Languages: C, Python, Javascript, C++, Go, C#, Shell, Lua

Framework: Tensorflow, Keras, React, Echo

Database: PostgreSQL, MongoDB

Tools: Linux, Neovim, Git, GitHub, Docker

Misc: AWS EC2, AWS S3, Arduino, Platformio, ESP32, Unity3D

References

Haryadi S. Gunawi

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Surya Sumpeno

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I Ketut Eddy Purnama

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