Mohammad Rifqi F.

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RESEARCH INTERESTS

Computer Vision (Pattern matching and analysis).

Networks System (5G; WiFi 6/802.11ax; Random Access; RAN Intelligent Controller;).

Machine Learning (Systems and networks predictability).

Artificial Intelligence (AI)

Internet-of-Things (IoT)

EDUCATION

2021-Present	School of Electrical Eng. and Informatics, **Institut Teknologi Bandung** (ITB), Bandung, Indonesia, **Current GPA : 3.72 out of 4.0**.
2018-2021	SMA N 1 Magelang, Magelang Indonesia, Achievement: **1st Place as Best Graduate Student** of Natural Science Department (**3.64 out of 4.0**)
2015-2018	SMP N 1 Muntilan, Magelang Indonesia, Achievement: **2nd Place in National Examination** that held by Indonesian Ministry of Education (**38.0 out of 40.0**)

EXPERIENCE

Jan 2023-Present	**TEEP Research Internship Program,** Bandung, Indonesia o A remote research internship for talented International students in collaboration program at BMW Lab, NTUST. o Focused on studying RAN architecture, 5G, and RAN Intelligent Controller (RIC). o Supervised by Prof. Ray-Guang Cheng.
Aug 2022-Dec 2022	**Computer Labs Assistant (Comlabs -USDI ITB),** Bandung, Indonesia o Chosen as 1 out of 500+ applicants to guide 35+ practitioners in doing practicum regarding python. o Have responsibilities to teach the practitioners, rate their assignment, and give advise to them. o Skills : Algorithms, Python (Programming Language), etc.
Feb 2022-Present	**Undergraduate Research Program at Garuda Ilmu Komputer (GIK) Lab,** Bandung, Indonesia o GIK Lab was formed to prepare Indonesian students who are bright and passionate about building the nation to be able to continue their studies at world-class universities, especially in the United States, in the area of Computer Science and Engineering. o In this preparatory program, Indonesian students will conduct joint research with leading international professors in the United States.
Jan 2022-Aug 2022	**Pre-Research Intern at NTUST,** Bandung, Indonesia o This is a remote research mentorship program for talented International students in collaboration at BMW Lab, NTUST. o Focused on studying Random Access, WiFi 7, and 802.11ax; also having responsibility to make weekly report and assignment that teach me to stay productive. o Supervised by Prof. Ray-Guang Cheng.

AWARDS

Scholarship	**Granted scholarships for monthly expenses** from AKABRI 67-70 Foundation.	2021
Scholarship	**Granted a full scholarship for my tuition fees** during my study in Institut Teknologi Bandung. The details can be looked at the official website: kip-kuliah.kemdikbud.go.id/	2021
Volunteer	**Best academic volunteer** at SMAN 1 Magelang.	2020

COMPETITION

1st Place	National	**Ruangguru Champion Season.** Academic Olympiad that held by **Ruangguru Company,** won USD1000.	2019
1st Place	Regional	**Kompetisi Sains Nasional (KSN),** in **Physics** at first stage. Physics Olympiad that held by **Indonesian Ministry of Education**.	2019
3rd Place	National	**Tidar Mathematics Competition** at Tidar University**.**	2019
1st Place	Regional	**Lomba Debat Bahasa Indonesia** (LDBI), **Best Speaker** at first stage. Indonesian Language Debate Contest that held by Indonesian Ministry of Education.	2019
Finalist	National	**Undip Mathematics Competition** at Diponegoro Univeristy.	2019
4th Place	National	**Academic Quiz Contest** that held by Indonesian Ministry of Education.	2018
Finalist	National	**Physics Competition** at Yogyakarta State University.	2018

| Finalist | National | **National Physics Competition** at Tidar University. Best paper based test score at first stage. | 2017 |

DIGITAL PROJECT EXAMPLE

EigenFace Recognition with Python GUI (https://github.com/rifqifarhansyah/EigenFace-Recognition)
- o This project is associated with Geometry and Linear Algebra course of STEI, ITB.
- o In this program, we can upload our photo or use the webcam to take a realtime photos.
- o The result of comparison between the uploaded photo with the eigen face database.
- o I have contributed to make an User Interface with Python GUI. The libraries that I used to construct this project are CustomTkinter (version 4.6.3), PIL (version 8.4.0), Tkinter (version 8.6), and FPDF (version 1.7.2).

Batik Pattern Classification (https://github.com/rifqifarhansyah/Batik-Pattern-Classification)
- o This project is associated with Discrete Mathematics course of STEI, ITB.
- o In this program, I made a program to analyze the pattern from input image and then compare them with the training image.
- o I utilize global feature extraction to take the pattern, texture, and colour allocation from every batik picture. The database of this program have been specified by me, about 80 pictures. In this program, I add 4 database of indonesian batik pattern (parang, nitik, ceplok, lereng).

Matrix Calculator with Java (https://github.com/rifqifarhansyah/Algeo01-21086)
- o This project is associated with Geometry and Linear Algebra course of STEI, ITB.
- o In this program, we can determine the solution of linear equations (no solutions, single solutions, or paramethric), determinant of augmented matrix, linear & bicubic interpolation, and find the inverse of certain matrix.
- o I have contributed to make function for paramethric solution of linear equations, determinant with cofactor methods, inverse of matrix, save method, and main menu interface.

TECHNICAL SKILLS

ML/AI	**OpenCV**, **Tensorflow** and **Keras**.
Database	Familiar with **Firebase, MongoDB** and **MySQL**.
Cloud Hosting	**AlibabaCloud, AWS, Github, Heroku, Netlify, Repl.it, Vercel,** etc.
IoT	Worked in projects using **Arduino IDE**.
PL	**Assembly, Bash, C, C++, C#, CSS, Dart, Go, Haskell, HTML, Java, JavaScript, Kotlin, Markdown, Php, Powershell, Python, Prolog,** etc.
Tools	**Git**, **GitHub**, **Postman**, **VSCode**.

SKILLS

Physics	Having **deeply knowledge** in **Physics material** such as particle kinematics, linear motion particle dynamics, circular motion particle dynamics, work and energy, momentum, simple harmonic oscillations, rigid body dynamics, dimensions, and hydrostatic pressure.
Language	**Indonesian** (Native); **English** (Professional working proficiency); **Deutsch** (Limited working Proficiency)

REFERENCE

Ray-Guang Cheng	Distinguished Professor, Electronic and Computer Engineering, NTUST-Taiwan, crg@mail.ntust.edu.tw

Find me on :
https://rifqifarhansyah.vercel.app/

I declare the details stated to be true and complete.
(CV updated on February 5, 2023)