

# Rizky Ramadhana P. K.

Availability: anytime between May 10th and August 29th

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🐙 LeetCode Profile

✉ rizky@vt.edu

🌐 Rizky Ramadhana

## EDUCATION

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### •Master of Science in Computer Science

2024-26

Virginia Tech, US

Research Interest: Programmable Network for Security, P4 (advised by Prof. Peng Gao)

### •Bachelor of Science in Informatics (#1 Engineering School in Indonesia)

2020-24

Bandung Institute of Technology, Indonesia

GPA: 3.93/4.00

Final Project: Large Language Model-Based Testing for Cross-Site Scripting Vulnerabilities

## WORKING EXPERIENCE

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### •Kurasi Media Nusantara

Jan - Jul 2024

NLP Engineer Intern (Python, FastAPI, BERT)

Bandung, Indonesia

- Designed and deployed a BERT-based model for extracting quotes and topics using FastAPI
- Enhanced system efficiency by implementing variable caching, achieving a 10x reduction in runtime

### •Sayurbox (Top 3 E-groceries in Indonesia)

Aug - Nov 2021

Data Engineer Intern (Python, BigQuery, Airflow)

Remote

- Applied ETL from/to BigQuery, MySQL Databases, Google Sheets
- Implemented a directed acyclic graph pipeline using Airflow

### •Bukit Vista Hospitality

Jan - Apr 2021

Data Scientist Intern (SQL, Tableau, Redash)

Remote

- Scraped apartment and hotel listings to analyze price statistics, enabling reasonable pricing for specific areas
- Pulled data from MySQL databases and visualized it with Redash and Tableau

## RESEARCH EXPERIENCE

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### •International Research Collaboration on Tackling Cancellation and Retry Bugs

Nov 2022-23

Research Collaborator (Java, Maven, JUnit, Mockito, Hive)

Remote

- Collaborated with Prof. Shan Lu of University of Chicago and her PhD student Bogdan Alexandru Stoica
- Developed an automated way to count the test coverage of retry bug in Hive and HBase
- Integrated fault injection tool and listener to JUnit and Maven Surefire Plugin

### •Padjajaran University - Graduate School of International Relation

Jan - March 2022

Research Collaborator (Python)

Bandung, Indonesia

- Scraped 500,000++ articles on the three biggest news platform in Indonesia
- Ran the scraper in AWS EC2
- Introduced a trend analysis on keywords and entity based on experts knowledge

## HONORS AND AWARDS

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### •Runner Up GEMASTIK 2022

Ranked 4th out of 200 teams

- The most prestigious data mining competition in Indonesia, held by Indonesia Ministry of Education
- Developed an outbreak early warning system leveraging anomaly detection in keyword search trends

### •1st place Datathon 2021 by Indonesia National Research Agency

Out of 182 teams

- Forecasted mobility restriction relaxation in Indonesia during COVID-19 using ARIMA, time-series analysis algorithm
- Analyzed the optimal in-office work proportion during COVID-19 using polynomial regression

### •Silver Medalist European Physics Olympiad 2020

- One of five students that represent Indonesia (selected from 53 students)
- Ranked 28th out of 260 participants from 53 countries
- More information here <https://eupho.ee/eupho-2020/>

## TECHNICAL SKILLS AND INTERESTS

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**Languages :** Python, Java, Javascript, C/C++, Bash Scripting, HTML+CSS+SQL

**Libraries :** Transformers, Pandas, PyTorch, NumPy

**Tools:** GCP, AWS EC2, AWS RDS, BigQuery, Airflow, Redash, Tableau

**Areas of Interest:** Machine Learning, Software Engineering

## ORGANIZATIONAL AND LEADERSHIP POSITION

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### •Nusantara Study Club

*Aug - Dec 23 (expected)*

*Director*

Bandung

- Coordinating private course for junior high school students preparing for high school entrance examination
- Coordinating 5+ tutors from top 3 unis in Indonesia and 10+ students with IDR 100+ million in revenue

### •ARKAVIDIA 2023: Annual Tech Competitions by HMIF ITB

*Sep 22 - Feb 23*

*Head of Data Science Competition*

Bandung

- Led a group of 10 peoples to held annual data science competition
- Generated highest participant (100+) and highest revenue (IDR 5+ million) compared to other three competitions

### •SMA Taruna Nusantara Alumni Association

*Aug 21-22*

*Head of Bandung Region*

Bandung

- Led one of the biggest alumni association in Indonesia with 100+ regional members
- Increased participation and competence of members by holding monthly gathering and sharing session

## PORTOFOLIO (LINKTRE.EE/RIZKYRAMADHANA26)

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### •Image Compression with K-Means Clustering

*Lowered image size by reducing the color space*

- Implemented K-Means algorithm in python from scratch
- Used numpy for fast matrix operation

### •Fruit Image Classification

*Classify an image into the name of the fruit and its condition (good/bad)*

- Used CNN with Tensorflow using similar architecture as ImageNet to classify the images into 12 classes
- Compared the ImageNet architecture to much simpler architecture and achieved 0.8+ accuracy