

Muhammad Rifqi Ma'ruf

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EDUCATION

Sepuluh Nopember Institute Technology

Bachelor of Computer Science (GPA: 3.68/4.00)

Surabaya, ID

Aug. 2022 – Expected Sept 2026

RESEARCH & TECHNICAL EXPERIENCE

Research Intern

Jun – Aug 2026

Center for IoT Innovation Laboratory, NTUST

Taipei, Taiwan

- Designed an end-to-end pipeline for preserving tacit knowledge from laboratory discussions to improve long-term research knowledge preservation.
- Investigated hybrid retrieval methods by integrating RGT embeddings with knowledge graphs for semantic search and knowledge organization.
- Implemented and evaluated the complete retrieval pipeline, including document ingestion, embedding generation, graph construction, retrieval, and evaluation.

LLM Research Assistant

Aug – Nov 2025

Software Engineering Laboratory, ITS

Surabaya, Indonesia

- Co-developed an agentic AI application for personalized task management using Large Language Models (LLMs), the ReAct framework, and Model Context Protocol (MCP).
- Evaluated the system through a usability study involving 30 participants, achieving a System Usability Scale (SUS) score of 73.67 and an AI scheduling Task Success Rate (TSR) of 83%.
- Co-authored and published the IEEE ICTS 2025 paper "*AI-Based Application for Task Management and Scheduling Student Activity*".

Systems & Network Research Assistant

Jul – Sep 2025

Networking Technology and Intelligent Cybersecurity Lab, ITS

Surabaya, Indonesia

- Developed an augmentation-free semi-supervised learning framework for regulatory text intelligence using IndoBERT.
- Implemented and evaluated contrastive learning strategies (BAL, SCL, and JSCL) combined with pseudo-labeling under limited labeled data.
- Co-authored an IEEE COMNETSAT 2025 publication on augmentation-free semi-supervised learning for regulatory text classification.

LEADERSHIP & MENTORSHIP

Teaching Assistant

Sep 2024 – Jul 2025

Department of Informatics, ITS

Surabaya, Indonesia

- Mentored 230+ students in Software Development Principles, Data Structures, and Database Systems.
- Delivered hands-on lab sessions in C/C++ and Python, emphasizing code efficiency and algorithmic problem-solving.
- Managed grading workflows and provided technical feedback, ensuring consistency in project assessments.

Vice Chair, Scientific Bureau

Mar – Dec 2024

Himpunan Mahasiswa Teknik Informatika (HMTIC), ITS

Surabaya, Indonesia

- Coordinated a team to develop initiatives that enhance the scientific research and competitive programming skills of Informatics Engineering students.
- Oversaw organizational documentation and communication workflows as Event Secretary for "Bluecamp," an advanced scientific training program, ensuring smooth event execution.

ADDITIONAL INFORMATION

Technical Skills: C/C++, Python, Expo, Flask, Git, SQL, HuggingFace

Tools & Knowledge: Knowledge Graph, Retrieval Information, Network Security Fundamentals, Experimental Design, Visual Paradigm, Technical Documentation

Languages: Indonesian (Native), English (TOEFL ITP: 547)

Certifications: Cybersecurity Training (ITS Nabu), Calculus and Machine Learning (Coursera)

Awards: 3rd Place, SMEFU National Scientific Writing Competition; Runner-up, IT-Paper PINGFEST 2023