



MOHAMMAD FEBRYAN KHAMIM

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Final-year Mathematics Undergraduate at Institut Teknologi Sepuluh Nopember (ITS) with a strong foundation in data analysis and machine learning. Experienced in collecting, cleaning, processing, analyzing, and visualizing data through internships and academic projects, including forecasting, clustering, and interactive dashboard development. Have a strong passion for transforming complex data into meaningful insights that support data-driven decision making.

Education

Institut Teknologi Sepuluh Nopember (ITS) • Surabaya, Indonesia

Agt 2022 – **Present**

Bachelor of Mathematics

GPA : 3.77/4.00 (Magna Cum Laude) | **Focus** : Data Analytics, Machine Learning, and Computational Mathematics

Thesis : Modeling and Formal Verification of Gold Investment Returns Using Discrete-Time Markov Chain and Probabilistic Computation Tree Logic

SMA Negeri 3 Blitar • Blitar, Indonesia

Jul 2019 – Jun 2022

Senior High School – Mathematics and Natural Sciences

Grade : 93.61

Professional Experiences

dxAcademy • Surabaya, Indonesia

Jan 2026 - Jun 2026

Chief Marketing Officer

- Initiated and developed the company's social media publication strategy
- Planned and designed six Instagram posts to strengthen brand awareness and expand the company's audience reach
- Monitored social media performance and generated more than 70 Instagram likes

Badan Pusat Statistik (BPS) Kota Blitar • Blitar, Indonesia

Jan 2025 – Feb 2025

Data Analyst Intern

- Collected agricultural production data through direct field surveys
- Performed data entry, validation, and management using Microsoft Excel
- Processed and analyzed Blitar City rice production data and developed ARIMA forecasting models to predict future production trends
- Applied K-Means Clustering to identify economic pattern, achieving a Davies-Bouldin Index (DBI) of 0.19499, indicating strong cluster quality

Programming and Visual Computing Laboratory • Surabaya, Indonesia

Sep 2024 – Jun 2025

Laboratory Assistant

- Assisted Algorithm and Programming courses for 30+ undergraduate students
- Delivered explanations for 15+ modules on Algorithms and Programming courses
- Assessed and evaluated the performance of 30+ students

ITS Online – ITS Media Center • Surabaya, Indonesia

Nov 2022 – **Present**

Journalist

- Produced 93+ news articles of institutional events
- Edited and Refined 68+ news articles to improve clarity and accuracy
- Reached 256.000+ audience views through published content
- Served as a reporter and editor for 11 editions of the university's official magazine (4 as reporter and 7 as editor)

Project Experiences

Global Project-based Learning in Data Science 2025 • Tokyo, Japan

Sep 2025

Student Exchange

- Developed a data science project to analyze the chattering phenomenon during metal cutting using image data and labeled time-series machining datasets
- Collaborated in an international team of five students from three countries
- Conducted data preprocessing before building an XGBoost model with up to 90% accuracy

Global e-Commerce Sales Dashboard

Business Dashboard

- Transformed raw datasets using Excel pre-processing techniques
- Developed interactive Power BI dashboards for meaningful data visualization and business insight
- Designed user-friendly and insightful dashboards that enabled efficient data exploration and decision making

LiterAsik: Digital Library Management System

Database Management System

- Designed relational database architecture from conceptual modeling to physical implementation using entity relationship analysis
- Generated and implemented SQL database schemas based on the designed data model, including tables, primary keys, foreign keys, and relational constraints
- Designed interactive user interface prototypes using Figma

Febelajar – Academic Website

Academic Website

- Designed and developed a personal academic website featuring study materials, summaries, and practice exercises across 7+ undergraduate mathematics courses.
- Organized and structured educational content to improve accessibility and support 900+ students in independent learning and course preparation.
- Implemented responsive web pages using HTML and CSS, focusing on intuitive navigation and user-friendly content presentation.

Ant Colony Optimization for Traveling Salesman Problem

Machine Learning

- Collected, cleaned, and prepared location data of cities in East Java for optimization analysis
- Developed and implemented the Ant Colony Optimization (ACO) algorithm
- Interpreted optimization results and presented them through interactive and engaging analysis

Clustering Algorithm for Grouping Cities based on the Smart City Index

Machine Learning

- Preprocessed and transformed smart city indicator datasets using Python
- Developed 3 clustering algorithms, including K-Means, Hierarchical Clustering, and Gaussian Mixture Models
- Analyzed and interpreted clustering results to generate meaningful insights and comparative evaluations

UMKM Digital Marketing Development Project

University Community Service Program (KKN)

- Developed content and channel recommendations to improve online visibility and customer reach
- Planned and designed 12 Instagram posts to strengthen brand awareness and expand the company's audience reach
- Monitored social media performance and generated more than 100+ Instagram likes

Organizational Experiences

ITS Online • Surabaya, Indonesia

Managing Editor (Vice Head)

Feb 2025 – Feb 2026

- Initiated and led 32+ weekly editorial strategy meetings to drive content planning
- Coordinated the execution of 16+ editorial programs and newsroom agendas
- Developed and delivered 4 quarterly performance reports for 25 reporters

Secretary & Treasurer

Nov 2023 – Feb 2025

- Managed and supervised editorial financial administration over 16-month period
- Prepared and distributed monthly financial reports for 35 editorial team members
- Administered official correspondence and document management, including drafting and archiving administrative records

Bidikmisi ITS • Surabaya, Indonesia

Head of Media and Information Department

Feb 2025 – Feb 2026

- Led and supervised a team of 13 in developing and strengthening organizational branding initiatives
- Formulated long-term content planning strategies to ensure consistent and impactful communication
- Ensured quality and consistency of publications across official organizational media channels

Staff of Media and Information Department

Feb 2023 – Dec 2023

- Developed content briefs as strategic guidelines for visual design production
- Collaborated with the design team to ensure alignment and coherence of visual concepts
- Produced graphic design assets tailored to stakeholder needs and requirements

Certifications

Python for Data Science and Machine Learning Certificate

May 2026

UDemy Course

Covers data analysis, preprocessing, and the implementation of 10+ machine learning models, including basic NLP and neural networks.

Bootcamp Data Analyst

May 2026

KarirNex

Certification in Data Analytics Fundamentals, covering Excel, SQL, Python, Google BigQuery, Google Colab, systematic data analysis, data collection and cleaning, data processing, and dashboard development using Google Looker Studio.

Microsoft Excel Specialist

Apr 2026

KarirNex

Certification in Microsoft Excel Fundamentals Bootcamp, covering essential Excel skills including data management, formulas and functions, pivot tables, and basic VBA macros.

Understanding Data

Feb 2026

MySkill

Certification focused on fundamental data concepts, including data understanding, interpretation, and the application of data to support analytical decision-making.

Skills

- **Programming Languages** : Java, Python
- **Tools** : Excel, Power BI, MATLAB, LaTeX, Figma, SQL Server
- **Languages** : Indonesian (Native), English (Professional)