

# Faishal Izzuddin Robbani

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Portfolio: [xiaofai17.github.io](https://xiaofai17.github.io)

## OBJECTIVE

Fifth-semester Applied Data Science undergraduate student at Politeknik Elektronika Negeri Surabaya, passionate about turning data into insights through analytics and machine learning. I enjoy working on projects that align with my skills in data preparation, feature engineering, modeling, and visualization. With strong teamwork, time management, and problem-solving abilities, I'm eager to grow through real-world experience as a Data Analyst or Machine Learning Engineer intern.

## EDUCATION

### Politeknik Elektronika Negeri Surabaya (PENS)

Bachelor of Applied Science, Applied Data Science

Surabaya, Indonesia

Cumulative GPA : 3.59

- Relevant Coursework: Machine Learning, Data Mining, Data Processing, Data Exploration and Visualization, Data Warehouse, Applied Statistical Analysis, Artificial Intelligence

## PROJECT

### Order Management Clustering and Forecasting Dashboard

Technologies : Python, Pandas, NumPy, SQLAlchemy, Scikit-Learn, Prophet, SciPy, Matplotlib, Seaborn, PostgreSQL, Power BI, Pentaho

- Connected to PostgreSQL database and performed data preprocessing and exploratory data analysis.
- Applied K-Means clustering on total revenue data to categorize business performance into less profitable, profitable, and highly profitable clusters.
- Conducted time series forecasting of daily total revenue using Prophet to predict future trends.
- Evaluated clustering with Silhouette Score (0.79), Calinski-Harabasz Index (201.01), and Davies-Bouldin Index (0.28).
- Visualized key insights and forecasts in an interactive Power BI dashboard.

### Sekar Ponorogo – AI-Powered Economic Data Dashboard

Technologies : Python, Pandas, NumPy, SciPy, Google Generative AI (Gemini), Supabase, Next.js, Railway, Vercel

- Conducted data preprocessing and computed relationships among nominal, ordinal, and ratio variables.
- Applied various statistical methods including Chi-square, Cramér's V, Spearman, Pearson correlation, One-way ANOVA, and Kruskal-Wallis ANOVA for data analysis.
- Integrated Google Generative AI (Gemini) to generate automated analytical summaries based on user-selected variables.
- Deployed web dashboard, featuring EDA, comparison, clustering, and prediction modules for Ponorogo's household economic data.

### Faztream – Movie Recommendation and Semantic Search System

Technologies : Python, Pandas, Scikit-Learn, Regex, Time, Requests, Instant Data Scraper, PostgreSQL, FastAPI, Next.js

- Scraped and combined movie data from IDLIX and IMDb, followed by data cleaning and preprocessing.
- Performed data migration to PostgreSQL for structured storage and efficient access.
- Implemented TF-IDF, cosine similarity, and NLP-based semantic search to recommend movies based on content relevance.
- Developed a content-based recommendation system capable of retrieving semantically related movies from user queries.

### Amazon Toy Recommendation System

Technologies : Python, Pandas, NumPy, Regex, Scikit-Learn, Joblib, Streamlit

- Performed data preprocessing and feature engineering on Amazon toy product dataset.
- Implemented TF-IDF vectorization and cosine similarity for content-based recommendation.
- Built a recommendation system that suggests similar toys based on product features and categories.
- Saved processed data and similarity matrix as `df.pkl` and `similarity_matrix.pkl` for efficient retrieval.
- Deployed the interactive recommendation web app using Streamlit.

### Indonesian News Title Classification and Prediction

Technologies : Python, Pandas, Scikit-Learn, Regex, Matplotlib, Seaborn

- Performed data cleaning, splitting, and TF-IDF vectorization on Indonesian news titles.
- Trained and evaluated Multinomial Naive Bayes, Logistic Regression, and K-Nearest Neighbors models.
- Achieved 86.3% accuracy with Logistic Regression and 83.7% with Multinomial Naive Bayes.
- Built a classification system capable of predicting news categories based on new input titles.

## ORGANIZATIONAL EXPERIENCE

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### IEEE Student Branch PENS

Program and Activities Coordinator

**PENS, Indonesia**

February 2025 – Present

- Coordinated and supervised all organizational programs and activities within IEEE SB PENS.
- Successfully managed and oversaw the execution of four international webinars with 160+ participants.
- Led collaboration initiatives with other IEEE Student Branches across universities.
- Developed leadership, project management, public speaking, and team coordination skills through active event supervision and evaluation.

## SKILLS

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- **Hard Skill :** Python, SQL, Pandas, Scikit-learn, Power BI, Tableau, Pentaho, PostgreSQL, Machine Learning, Data Preprocessing & Feature Engineering
- **Soft Skill :** Leadership, Project Management, Team Coordination, Communication, Analytical Thinking, Problem Solving, Public Speaking, Teamwork, Adaptability
- **Languages :** Bahasa Indonesia (Native), Javanese (Fluent), English (Intermediate)

## CERTIFICATIONS

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- Certificate of Completion – Microsoft Power BI
- Certificate of Completion – Tableau