

# MIRANGGA JAKTI

## AI-Powered Full-Stack Engineer

Tangerang, Indonesia | [miranggajakti@gmail.com](mailto:miranggajakti@gmail.com) | +62 812-9212-7621 | [github.com/rangga-jakti](https://github.com/rangga-jakti) | [linkedin.com/in/mirangga-jakti](https://linkedin.com/in/mirangga-jakti)

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## PROFESSIONAL SUMMARY

AI-Powered Full-Stack Engineer with 2+ years of hands-on experience designing and shipping production-grade AI web applications. Specialized in integrating large language models (LLaMA, Groq API) with modern web stacks to build intelligent, data-driven SaaS products. Proven track record delivering end-to-end systems — from real-time data pipelines and ML forecasting engines to interactive dashboards and scalable backend architectures. Currently building AI products that bridge the gap between machine intelligence and practical user value.

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## TECHNICAL SKILLS

**AI & Machine Learning:** LLM Integration (LLaMA 3.3, Groq API), LangChain, Scikit-learn, Prophet, Decision Tree, Random Search, Data Preprocessing, Model Evaluation

**Languages & Backend:** Python, Django, REST API, PHP, JavaScript

**Frontend:** HTML, CSS, TailwindCSS, Alpine.js, Chart.js, React (Next.js)

**Databases:** PostgreSQL, MySQL

**Data & Automation:** Pytrends, APScheduler, Pandas, Jupyter Notebook

**DevOps & Tools:** Git, GitHub, Railway, Vercel, Docker (basic)

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## PROJECTS

### TrendPulse AI — AI SaaS Trend Intelligence Platform

2026

*Full-stack AI-powered SaaS for real-time market trend analysis, forecasting, and content generation*

**Stack:** Django 5, PostgreSQL, TailwindCSS, Groq API, LLaMA 3.3-70B, Prophet, Chart.js, Alpine.js, APScheduler

- Architected a modular full-stack application with separate Django apps for analytics, AI engine, ML engine, and dashboard — enabling clean separation of concerns and scalable feature development.
- Built a real-time data ingestion pipeline consuming Google Trends and Google News RSS feeds, enabling up-to-the-minute market intelligence.
- Engineered a proprietary Virality Score algorithm combining search volume, growth rate, news coverage, and momentum signals to rank trends by business potential.
- Integrated LLaMA 3.3-70B via Groq API for AI-generated trend analysis, sentiment scoring, and content generation — delivering actionable insights in seconds.
- Developed a time-series ML forecasting system using Prophet to generate 7-30 day trend predictions with configurable confidence intervals.
- Designed an automated data refresh pipeline using APScheduler, ensuring dashboards always reflect the latest data without manual intervention.

- Delivered a production-ready deployment with authentication, personalized dashboards, and real-time Chart.js visualizations.

## VentureLens AI — Startup Validation Platform

2026

*AI-powered platform that validates startup ideas with market data and intelligent analysis in seconds*

**Stack:** Django, PostgreSQL, LLM Integration, TailwindCSS, REST API

- Built an end-to-end startup evaluation system that takes a single idea as input and returns viability scoring, SWOT analysis, market sizing, and competitor insights — all generated in under 10 seconds.
- Designed a multi-dimensional AI analysis pipeline assessing business potential across 5+ dimensions, enabling founders to make data-driven go/no-go decisions faster.
- Implemented automated PDF report generation, allowing users to export validated startup analyses for investor presentations and internal planning.
- Developed session-based authentication and a dashboard interface supporting multiple concurrent idea evaluations and historical report access.

## AI Market Trend Analyzer

2026

*Full-stack web application for real-time business trend analysis powered by Google Trends and LLM*

**Stack:** Django, PostgreSQL, Pytrends, Groq LLM, Chart.js, Railway

- Built a real-time trend analysis platform ingesting live Google Trends data and running it through a custom scoring algorithm based on interest level, momentum, and trend consistency.
- Integrated Groq LLM with multi-persona AI to generate diverse business insights — providing users with balanced perspectives from different market angles.
- Deployed a production-ready application on Railway with cloud PostgreSQL, GitHub-integrated CI/CD, and auto-deployment pipeline.
- Designed personalized user dashboards with interactive Chart.js visualizations, enabling drill-down analysis by industry and timeframe.

## Passport Application System — Internal Admin Platform

2025

*Multi-stage administrative workflow system for passport processing*

**Stack:** PHP, MySQL, Session-Based Auth

- Developed a structured 5-stage administrative workflow (registration → validation → queue → processing → reporting) reducing processing errors through clearly separated modules.
- Implemented role-based access control and session-based authentication, ensuring secure data access across administrative tiers.
- Built a reporting dashboard with revenue summary module, providing supervisors with real-time operational visibility.

## ML — Customer Loyalty Prediction Model

2025

*Classification model predicting customer loyalty status using optimized Decision Tree*

**Stack:** Python, Scikit-learn, Pandas, Jupyter Notebook

- Developed a Decision Tree classification model to predict customer loyalty status, applying Random Search hyperparameter optimization to improve model accuracy.
- Performed end-to-end ML pipeline: data preprocessing, feature engineering, model training, cross-validation, and performance evaluation using classification metrics (accuracy, precision, recall, F1).

**EXPERIENCE**

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**Community Service — IT Seminar for High School Students**

2022

*Universitas Pamulang — Technical Team Member*

- Delivered introductory programming and computer systems sessions to 50+ high school students, simplifying technical concepts for non-technical audiences.
- Collaborated with a cross-functional team to design and execute a structured IT education curriculum, strengthening communication and technical mentoring skills.

## **E D U C A T I O N**

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**Bachelor of Computer Science — Informatics Engineering**

2022 – Present (Expected 2026)

*Universitas Pamulang, Tangerang, Indonesia*

- Relevant coursework: Data Structures, Algorithms, Database Systems, Machine Learning, Software Engineering, Web Development.