

Bagas Aulia Alfasyam, S.Kom

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SUMMARY

AI/ML Engineer and Full-Stack Developer with 4+ years of experience building enterprise applications and machine learning systems. Specialized in predictive analytics, NLP, and computer vision through Laskar AI (NVIDIA x Dicoding) and DBS Foundation programs. Proven track record delivering production-ready systems including procurement management platform with multi-level approval workflow, hybrid AI chatbot combining LSTM and GPT, and cross-platform mobile applications. Strong background in Clean Architecture, RESTful API design, and real-time systems.

EDUCATION

Malikussaleh University

Lhokseumawe, Aceh

Bachelor of Computer Science in Information System

October 2023

- **GPA:** 3.61 / 4.00 | **Honors:** S.Kom (Sarjana Komputer)
- **Coursework:** Machine Learning, Data Analysis, Software Engineering

WORKING EXPERIENCE

PT Jago Talenta Indonesia | Bandung, Hybrid

IT Support Specialist (Full-time), June 2024 - Present

- Resolve 50+ daily L1/L2 incidents for IndiHome technician operational systems, maintaining 95% SLA compliance.
- Developed Python-based auto-reporting tool automating ticket classification and SLA calculation, reducing manual reporting time by 70%.
- Perform root cause analysis using Elastic Stack (ELK) for log aggregation and AppDynamics for APM monitoring.
- Manage incident lifecycle through MyTech ticketing system and Telegram bot integration in 24/7 shift operations.

CV Catalyst Forge | Remote

CEO & Full-Stack Developer (Freelance), November 2023 - Present

Project 1: ProcurementHTE - Enterprise Procurement System (PT Patra Drilling Contractor)

- Architected and developed full procurement management system using ASP.NET Core 8.0 with Clean Architecture pattern.
- Implemented multi-level approval workflow (6 levels) with dynamic routing based on contract value thresholds (up to Rp 10B+).
- Built JWT authentication with 2FA (Email/SMS/TOTP), role-based access control, and comprehensive security audit logging.
- Developed auto-generated documents (Memorandum, SPMP, BOQ, P&L) using HTML-to-PDF engine with QR code verification.
- Integrated SignalR for real-time notifications and MinIO object storage for document management with presigned URLs.

Project 2: Procurement Approvals Mobile App (PT Patra Drilling Contractor)

- Built cross-platform mobile app using Flutter with Clean Architecture and Riverpod state management.
- Implemented QR code scanning for instant document access and batch approval/rejection processing.
- Developed offline-first architecture with secure token storage and auto-refresh mechanism.

Project 3: Lili Chatbot - Hybrid AI Chatbot Platform (Client Project)

- Developed hybrid AI chatbot combining custom LSTM model with OpenAI GPT API fallback mechanism.
- Built Indonesian NLP pipeline using PySastrawi for stemming/stopword removal and TF-IDF for similarity matching.
- Created admin dashboard for LSTM training with configurable architecture, real-time progress monitoring, and model versioning.
- Implemented OpenAI fine-tuning integration with JSONL export and training metrics visualization.

Project 4: MoneyTalkPTGPT - Financial Management System (Client Project)

- Developed Laravel 10 web application for cash flow management with role-based access (Admin/User).
- Built interactive dashboard with ApexCharts for monthly/yearly financial visualization and trend analysis.
- Implemented multi-format export (Excel via Maatwebsite, PDF via DomPDF) for financial reporting.

Department of Cooperatives and SMEs, Southeast Aceh | Aceh, On-site

IT Intern, January 2022 - March 2022

- Redesigned government website improving information accessibility with responsive design implementation and mobile-first approach.
- Developed interactive navigation system and content management features for public resources and SME directory.
- Created digital documentation system for cooperative registration and licensing workflow automation.
- Built data visualization dashboards for SME statistics and cooperative performance monitoring reports.

AI/ML PROGRAMS & TRAINING

Laskar AI - Professional & Lecturer | Hybrid

AI Scholar (Lintasarta x Dicoding x NVIDIA), February 2025 - August 2025

- Developed **customer segmentation model** using K-Means clustering with PCA, achieving optimal silhouette score for retail behavior analysis.
- Built **sentiment analysis system** for game reviews using LSTM/GRU with Indonesian NLP pipeline (Sastrawi, NLTK), achieving 85%+ accuracy.
- Implemented **hand gesture recognition** using MobileNetV2 transfer learning, exported to TensorFlow.js and TFLite for deployment.
- Created **lung cancer survival prediction** model using XGBoost/SVM with SMOTE for class imbalance handling.

DBS Foundation Coding Camp - Expert Machine Learning | Bandung

Advanced ML Scholar, September 2024 - January 2025

- Developed **sleep disorder detection system** comparing 7 ML algorithms (XGBoost, Random Forest, SVM, KNN, Logistic Regression, Decision Tree, Gradient Boosting).
- Built **Steam game recommendation system** using hybrid approach combining Content-based Filtering with TF-IDF and Cosine Similarity.
- Implemented **Collaborative Filtering** using user-based and item-based similarity matrices for personalized game recommendations.
- Designed **Deep Learning Neural Network** with embedding layers for hybrid recommendation, evaluated using MAE metrics.

DBS Foundation Coding Camp - Intermediate Machine Learning | Bandung

Intermediate ML Scholar, July 2024 - September 2024

- Built **sentiment analysis classifier** for DigiBank app reviews using LSTM neural network achieving 85%+ accuracy.
- Implemented Indonesian NLP pipeline with text preprocessing, tokenization, and TF-IDF feature extraction.
- Developed **finger counting image classification** (10,000+ images, 6 classes) using Transfer Learning with ResNet50V2 and InceptionV3.
- Exported trained models to **TensorFlow.js and TFLite** format for web and mobile deployment.

DBS Foundation Coding Camp - Beginner ML | Bandung

Intermediate ML Scholar, January 2024 - May 2024

- Developed **Rock-Paper-Scissors image classification** system using Convolutional Neural Network (CNN) architecture.
- Applied Transfer Learning with **ResNet50V2 and InceptionV3** pre-trained models for improved accuracy.
- Implemented **image augmentation techniques** (rotation, rescale, shear, zoom, horizontal flip) to enhance model generalization.
- Built end-to-end ML pipeline including data preprocessing, model training, evaluation, and real-time prediction.

Digital Talent Scholarship + BNSP Certification | Yogyakarta

Junior Mobile Programmer, February 2024 - March 2024

- Passed national professional certification (BNSP) for mobile development with Flutter, Dart, and Java.
- Developed cross-platform mobile applications using Flutter framework with Dart programming language

ICE Institute - Microcredential Game Developer (MBKM) | South Tangerang

Game Programmer, February 2022 - July 2022

- Developed 2D/3D games using Unity and C# in collaboration with Binus, Telkom University, and ITS.
- Led capstone project team of 10 students using Project-Based Learning methodology.

CERTIFICATIONS

Artificial Intelligence & Machine Learning

- Introduction to Artificial Intelligence - IBM (Dec 2025)
- Introduction to Generative AI & LLMs - IBM (Dec 2025)
- AI Ethics - IBM (Dec 2025)
- Machine Learning Terapan - Dicoding (Jan 2025)
- Belajar Pengembangan Machine Learning - Dicoding (Sep 2024)
- Belajar Dasar AI - Dicoding (Jan 2025)
- Belajar Dasar Data Science - Dicoding (Mar 2024)

Cloud Computing & DevOps

- Build a Secure Google Cloud Network - Google Cloud (Jul 2024)
- Implement Cloud Security Fundamentals on GCP - Google Cloud (Jul 2024)
- Networking Fundamentals on Google Cloud - Google Cloud (Jul 2024)
- Belajar Dasar Google Cloud - Dicoding (Aug 2024)
- Belajar Dasar-Dasar DevOps - Dicoding (Oct 2024)

Software Development

- Junior Mobile Programmer - BNSP (National Professional Certification) (Mar 2024)
- Belajar Prinsip Pemrograman SOLID - Dicoding (Jun 2024)
- Belajar Membuat Aplikasi Flutter untuk Pemula - Dicoding (Dec 2023)
- Memulai Pemrograman dengan Python - Dicoding (Feb 2024)
- Belajar Dasar Git dengan GitHub - Dicoding (Feb 2025)

Game Development

- Program Microcredential Game Developer - ICE Institute (Jun 2023)
- Unity C# Scripting & Project Management - Unity (Jun 2024)
- Game Development courses: Binus, Telkom University, ITS (2D/3D, FPS, TPS, Multiplayer)

TECHNICAL SKILLS

Languages: Python, C#, Dart, Java, Kotlin, JavaScript, PHP

AI/ML: TensorFlow, Keras, Scikit-learn, Pandas, NumPy, NLTK, OpenAI API, NLP, Computer Vision, LSTM

Frameworks: ASP.NET Core, Flask, Laravel, Flutter, Entity Framework Core, SignalR

Databases: SQL Server, MySQL, SQLite, MinIO (Object Storage)

Tools: Git, Docker, Google Cloud, Elastic Stack, AppDynamics, Postman, Unity

Spoken Languages: Indonesian (Native), Arabic (Fluent), English (Professional Working)