

PUSRI ANANDA HANDAL

Full-Stack AI & Software Engineer | Informatics Student

+62 812-5684-2181 • Pusriananda1@gmail.com • Cikarang, Bekasi, Indonesia • linkedin.com/in/pusriananda • pusriananda.site

PROFESSIONAL SUMMARY

Informatics student at President University (GPA 3.82/4.00) and Full-Stack AI / Software Engineer specializing in building scalable high-concurrency backend architectures, production-ready Retrieval-Augmented Generation (RAG) pipelines, real-time collaborative cloud systems, and Computer Vision / IoT integration. Highly proficient in Next.js, React, C++ (Drogon), Go, Spring Boot, Python, and PostgreSQL (pgvector). Proven track record in developing end-to-end cloud-native engineering solutions and leading cross-functional teams.

EDUCATION

President University — *Jababeka, Cikarang, Indonesia* September 2024 – July 2027 (Expected)
Bachelor of Science in Informatics (GPA: 3.82/4.00 | Jababeka Scholarship 75% Awardee)
Core Coursework: Artificial Intelligence, Natural Language Processing, Deep Learning, Computer Vision, Software Engineering, Database Systems, Web Programming, Data Structures & Algorithms, Distributed Systems, Operating Systems, Computer Networks.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, C++, Go (Golang), Java, SQL, HTML/CSS.
Frontend & UI: Next.js, React, Vite, Tailwind CSS, Glassmorphic UI/UX, ReactFlow, Recharts, TipTap Editor.
Backend & Cloud: Go Chi Router, C++ Drogon Framework, Spring Boot, Express.js, Flask, PostgreSQL, Supabase, Neon Serverless DB, Upstash Redis, REST APIs, WebSockets, Docker, Google Cloud Run, NGINX, Vercel.
AI, ML & Vision: RAG Architecture, Vector DB (pgvector), Hybrid Search (BM25 + Cosine Similarity), OpenRouter API, Gemini LLM, Multi-Agent Systems, OpenCV, YOLO, PySerial.
Tools & Security: Git/GitHub, Stripe API, JWT Auth, Redis Locks & Pessimistic Locking, iText PDF Generator, Cloudinary, IaC (Terraform, Docker Compose, Kubernetes).

FEATURED PROJECTS

Cloud Architect Whiteboard — *Real-Time Collaborative Canvas & IaC Generator* 2026
Stack: Go (Golang), Chi Router, Next.js, ReactFlow, Redis (Pub/Sub), Neon PostgreSQL, Google Cloud Run, Gemini AI
• Architected a real-time collaborative cloud architecture whiteboard with sub-50ms WebSocket state synchronization powered by Go Chi and Redis Pub/Sub, incorporating role-based access control (Editor vs View-Only).
• Integrated Google Gemini AI to dynamically parse canvas AST diagrams into production-ready Infrastructure-as-Code (Terraform, Docker Compose, Kubernetes manifests, SQL) and real-time cloud cost estimates across AWS, GCP, and Azure.
• Deployed containerized microservices to Google Cloud Run in asia-southeast1 with HTTPS/WSS secure protocols and automated CI/CD workflows.

BrainSync AI — *High-Throughput Hybrid Search & Production RAG Infrastructure* 2026
Stack: Next.js, Neon PostgreSQL (pgvector), OpenRouter API, BM25, Cosine Similarity, SSE Streaming
• Engineered a full-stack Knowledge Management & RAG platform using Next.js, Neon PostgreSQL (pgvector), and OpenRouter API with Server-Sent Events (SSE) streaming.
• Implemented a Hybrid Search Pipeline combining BM25 keyword retrieval and 1536-dimensional Cosine Similarity vector search with interactive citation cards and page attribution.
• Built an interactive 2D Knowledge Graph visualizer canvas and RAG telemetry observability dashboard tracking embedding latencies, context relevance, and answer faithfulness metrics.

TaskFlow Enterprise — *Ultra-Low Latency Workload Engine with AI Copilot* 2026
Stack: C++ Drogon Framework, Neon Serverless PostgreSQL, Gemini API, Docker, Google Cloud Run
• Architected an asynchronous project management system using C++ Drogon Framework and Neon Serverless PostgreSQL leveraging non-blocking epoll event loops.
• Benchmarked sub-5ms HTTP API response latency and ~80% lower RAM footprint under high throughput compared to traditional monoliths; deployed on Google Cloud Run with Docker containerization.
• Integrated an embedded AI Copilot (Gemini API) for automated task breakdown and story points estimation, featuring 5 interactive navigation views (Board, Backlog, Roadmap, Calendar, Table) and JWT workspace isolation.

TIXFLOW — *Enterprise High-Concurrency Concert Ticketing Platform* 2025 – 2026
Stack: Spring Boot, Upstash Redis, Neon PostgreSQL, Stripe API, Cloudinary PDF, React
• Engineered a distributed ticketing SaaS using Spring Boot, Upstash Redis, and Neon PostgreSQL to process high-concurrency ticket drops without race conditions.
• Implemented Atomic Redis TTL locks (10-min) and JPA Pessimistic Write locks to guarantee zero double-booking under simulated ticket-rush stress tests.

- Integrated Stripe Checkout, dynamic 30s TOTP/HMAC anti-screenshot QR codes, Cloudinary PDF e-tickets, and an interactive web Gatekeeper scanner.

Harin Learning — *AI-Powered E-Learning Platform & Study Ecosystem*

2026

Stack: React, Vite, Supabase (PostgreSQL, Auth, Realtime), OpenRouter API (Gemini LLM), Tailwind CSS

- Engineered a multi-role EdTech platform featuring an interactive Student LMS Hub and Teacher Studio dashboard.
- Integrated a context-aware AI tutor companion via OpenRouter API alongside a built-in Lo-Fi study space, Pomodoro suite, and real-time community chat.
- Implemented gamification systems including daily challenges, streak tracking, XP points, and dynamic achievement badges to boost user retention.

AI Career Advisor — *Multi-Agent AI Guidance & Skill Intelligence Platform*

2026

Stack: React, Express.js, MongoDB Atlas, Multi-Agent Orchestration (OpenRouter), Recharts, Arbeitnow API

- Architected a career intelligence system powered by an orchestrated Multi-Agent AI architecture (Career Advisor, Skill Analyzer, Job Matcher, Learning Advisor).
- Integrated OpenRouter LLMs and Arbeitnow Job Market API to compute real-time career readiness scores (0-100%) and automated skill gap analysis.
- Built an interactive Kanban job application tracker, Recharts proficiency analytics, and a 24/7 AI conversational coaching interface.

FoodLink — *Food Surplus & Rescue Management System*

2025 – 2026

Stack: React, Vite, Supabase (PostgreSQL, Auth, RLS), Tailwind CSS, Docker, Vercel

- Engineered a B2B/B2C social marketplace & rescue redistribution platform connecting F&B businesses with social shelters.
- Implemented dual matching mechanisms (donor supply listings and recipient custom requests) with role-based access control and admin verification.
- Designed real-time impact dashboards calculating food saved (kg), meals served, and CO2 emissions avoided.

CVIR — *Real-Time Object Detection Dashboard & Robot Arm Controller*

2025 – 2026

Stack: Python, Flask, OpenCV, YOLO, PySerial, ESP32-CAM, Arduino

- Developed an Industrial IoT Computer Vision platform using Flask, OpenCV, and YOLO to process live MJPEG streams and classify target objects.
- Engineered a dual-camera failover mechanism (ESP32-CAM to local webcam) and multi-threaded PySerial communication to actuate an Arduino robot arm.
- Designed a real-time web monitoring interface featuring bounding box confidence metrics, activity telemetry logging, and a 10s safety countdown override.

LEADERSHIP & CAMPUS EXPERIENCE

PUFA Computer Science (Faculty Student Council) — *Head of Division Internal Relations*

Oct 2025 – Present

- Served as Project Manager for the Faculty Regeneration Event, leading cabinet transition workflows and election operations.
- Managed internal relation strategies and mentored team members to strengthen cross-divisional synergy.

PUFA Computer Science (Faculty Student Council) — *Member of Internal Relations*

Oct 2024 – Oct 2025

- Served as Project Manager for "Compshadow 2", leading end-to-end event planning and committee execution.

COMPSCIGALA 2025 — *Vice Project Manager 1*

Feb 2025 – Jun 2025

- Coordinated cross-functional committees, daily workflows, and risk mitigation for the faculty anniversary event.