



DESKA MULYANA

Software & AI Engineer | TypeScript, React.js, PostgreSQL, Docker

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Software & AI Engineer with 1.5+ years shipping production systems from database to deployment (CRM, LMS, trading, booking). I like building products from scratch and taking them to production, and I keep learning while working full-time: GPA 3.77, now pursuing a Master's in Business Information Systems. I have taught programming and led six intern developers, so I care about readable code, clear handovers, and secure defaults. Applying to BRILiaN (IT Developer track) to build reliable, secure digital banking technology.

WORK EXPERIENCE

PT Piranti Nusantara Indonesia (Piranusa) - Jakarta, Indonesia

Jun 2026 – Present

Software & AI Engineer (Onsite)

Official distributor of CAD, BIM & 3D software serving 500+ companies for 17+ years; ISO 9001:2015 certified.

- Co-developed, as one of two core engineers, the company's production CRM used by **30 users** (sales, leaders, management) to manage **200+ leads**; TypeScript, Bun/Elysia, PostgreSQL/Prisma, Redis/BullMQ, React.
- Applied secure coding across the app: **role-based access control for 5 roles** with record-level ownership, validation of user-supplied links against unsafe schemes, credentials, and IP hosts, and patching of vulnerable dependencies.
- Built the WhatsApp lead intake flow (automatic lead detection, context-grounded AI replies, deterministic routing to the right salesperson) and an AI task analyzer with structured JSON output.
- Worked with a teammate on the **AI research crawler** that profiles prospect companies: an LLM agent loop that chooses one browser action at a time under page, host, and time budgets, treats page text as untrusted (prompt-injection guard), respects robots.txt and rate limits, keeps source URLs for every fact, and verifies emails (MX) and phones (WhatsApp lookup) before CRM import.
- Built sales and campaign **analytics dashboards** with Excel/PDF exports, and a headless OCR service that digitizes business cards into CRM contacts (API-key only).
- Contributed to a suite of **100+ automated test files** covering access control, AI configuration, and analytics calculations; releases go through dev, staging, and production.

M-Knows Consulting & Kampus Gratis - Jakarta, Indonesia

Nov 2025 – May 2026

Web Programmer & AI Engineer (Onsite)

IT consulting firm providing software solutions and technology products for education and enterprise clients.

- Architected and delivered a **multi-tenant enterprise LMS** (Next.js, NestJS, TypeScript, PostgreSQL/Supabase) serving corporate clients including **Sinarmas, Hyundai, Perhutani, and Allo Bank**.
- Managed database migrations, indexing, and Row Level Security, OAuth/JWT authentication, and CI/CD with GitHub Actions and Docker across development, staging, and production.
- Resolved a production performance incident by fixing N+1 queries and missing indexes, cutting API response time **from 3s to 200ms** under concurrent load.
- Built a multi-agent AI pipeline (Python) with RAG on pgvector, and the Bermoela AI psychometric platform covering 20+ assessment types.
- Led a team of **6 intern developers** on the KerjaDiLuar job platform: system design, task breakdown, code review, and milestone delivery.

Nova Trading - Remote (UK-based team)

Aug 2025 – Oct 2025

Frontend Developer (Contract, Remote)

- Worked in a 15-person cross-timezone team on a production trading platform: restructured UI across 10+ pages, integrated WebSocket market data, and kept memory below 500MB under high-frequency streams.

Travedia Terbit Semesta - Remote

Jan 2025 – Jun 2025

Fullstack Web Developer (Contract, Remote)

- Built a travel booking system as sole developer (30+ REST endpoints, Midtrans payment, Google OAuth, 3-level RBAC) and deployed it on VPS with Docker, Nginx, and automated SSL, including SOP documentation.

EDUCATION

Universitas Gunadarma - Jakarta, Indonesia <i>Master of Information Systems Management (MMSI), Business Information Systems concentration</i>	Sep 2026 – Present
Universitas Gunadarma - Depok, Indonesia <i>Bachelor of Information Systems (S.Kom), GPA 3.77/4.00</i>	Aug 2021 – Sep 2025
Thesis: Travel Booking System Development Using Agile Scrum Methodology.	

TECHNICAL SKILLS

Languages	TypeScript/JavaScript, SQL, Python, Golang (chi, pgx, sqlc, gRPC)
Backend & API	REST API design, NestJS, Express.js, Bun/Elysia, FastAPI, gRPC, WebSocket, Redis Streams, Redis/BullMQ queues
Frontend & Mobile	React.js, Next.js, TypeScript, Tailwind CSS, Flutter (basic)
Data	RDBMS (PostgreSQL, MySQL), NoSQL (MongoDB, Redis), pgvector, Prisma, sqlc, query optimization, data migration, data pipelines, BI dashboards & reporting
DevOps & Cloud	Docker & Docker Compose (containerization), GitHub Actions CI/CD, Terraform (IaC), Nginx, Caddy, Linux server administration, AWS EC2, monitoring (OpenTelemetry, Prometheus, Grafana, Loki)
Security	Secure coding, RBAC & ownership checks, multi-tenant isolation, OAuth 2.0/JWT (RS256), argon2id, AES-GCM encryption, Row Level Security, input validation, dependency vulnerability patching, secret management
AI	LLM integration (OpenAI, Gemini, Qwen), RAG, prompt engineering, OCR/vision pipelines, multi-agent workflows
Languages (spoken)	Indonesian (native), English (professional working proficiency)
Practices	SDLC, Agile/Scrum, automated testing, API testing (Postman), code review, technical documentation

SELECTED PROJECTS

Cierra - AI Sales Agent for WhatsApp Sellers	2026 – Present
- Built the backend (Go API and WhatsApp gateway, PostgreSQL with pgvector) and a Python AI service over gRPC with RAG, connected through Redis Streams; business rules such as discount limits are enforced in code, not in prompts. - Applied secure design (tenant isolation in the repository layer, argon2id, RS256 JWT, AES-GCM) and automated delivery with Terraform, six GitHub Actions workflows, and observability (OpenTelemetry, Prometheus, Grafana, Loki); 28 test files plus an agent evaluation suite.	
Temankas - AI Personal Finance Tracker	2026 – Present
Finance app with AI receipt and bank statement scanning (temankas.com); rebuilding the backend in Golang with a Flutter app.	
Pesanzu - QR-based Food Ordering SaaS	2025
Multi-tenant ordering platform with Midtrans payments and real-time WebSocket order updates.	

ORGANIZATIONAL EXPERIENCE

Lembaga Komputerisasi (LEPKOM) - Universitas Gunadarma <i>Person-in-Charge & Programming Instructor</i>	2023 – 2026
Promoted from Lab Assistant to Instructor to Person-in-Charge; ran lab operations and exams (~40 participants per session), mentored junior assistants, and wrote course material for Golang, Java, and MySQL.	

CERTIFICATIONS & ACHIEVEMENTS

- Junior Web Programming - BNSP** (Badan Nasional Sertifikasi Profesi), 2025
- Fullstack Software Developer** (Kampus Merdeka x Productzilla) and **Fullstack Web Developer** (Kampus Merdeka x LearningX), 2024: both Grade A
- Fullstack Golang/Next.js and Flutter/Golang - BuildWithAngga, 2025
- MySkill (Project Management, Web Development), 2023; Front End Developer & Laravel 9 - Coding Studio
- Accepted into the AWS startup credits program** for Cierra