

MADE BRANENDA JORDHY

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EDUCATION

Bandung Institute of Technology

B.E. in Informatics Engineering, GPA: 3.79 / 4.0

- **Relevant Coursework:** Operating System, Software Engineering, Geometric and Linear Algebra, Artificial Intelligence and Data Literacy, Computer Organization and Architecture, Algorithm and Programming, Computational Logic, Discrete Mathematics
- **Member:** HMIF ITB, IEEE ITB Student Branch

Aug 2024 – present

Bandung, West Java

TECHNICAL SKILLS

Programming Languages: Python, Java, C, C++, JavaScript, HTML, CSS, Go

Frameworks & Tools: React, Next.js, Prisma, TailwindCSS, Node.js, FastAPI, PostgreSQL, Supabase, GitHub, Figma

CERTIFICATIONS & AWARDS

Introduction to Back-End Development | Meta | [Credential](#)

Issued Feb 2026

Programming in Python | Meta | [Credential](#)

Issued Feb 2026

2nd Place Hackathon @ Hackfest 2026 Universitas Ciputra | [Find out more](#)

April 2026

EXPERIENCES

Inkubator IT (IIT)

Technology Development

Bandung, West Java

May 2026 – present

- Onboarding into the DevOps team at a **software house** delivering client web, mobile, and business software, focusing on **build automation and production deployment**.
- Getting hands-on with the CI/CD toolchain and deployment infrastructure to support reliable, repeatable releases for multiple client engagements.

Concorde Systems

Systems & Backend Engineer

Bandung, West Java

May 2026 – present

- Onboarding as a Systems & Backend Engineer at a **startup** building **ConcordeOS**, an AI-powered, **offline-first** maintenance platform bridging enterprise ERPs (Odoo) and blue-collar technicians in extreme industrial environments.
- Ramping up on the backend stack and **asynchronous offline-first sync** architecture that ensures zero data loss in remote fields and underground plants while reducing MTTR for F&B, heavy manufacturing, and oil & gas operations.

The Sandbox 3.0

Director of Technology

Bandung, West Java

Nov 2025 – May 2026

- Led end-to-end software engineering for the competition platform serving **250+ users**, building the full registration and multi-stage submission pipeline (preliminary to final) using **Next.js, Prisma, and CockroachDB**.
- Developed an internal admin panel for real-time financial verification and participant submission management, streamlining the operational workflow for organizers throughout the event cycle.

Arkavidia

Software Engineering Curriculum Developer

Bandung, West Java

May 2026 – present

- Developed a **software engineering curriculum** and hands-on project materials for mentees, designing practice-focused modules on backend architecture, API integration, and production-ready implementation.
- Structured milestone-based assignments and guided build sessions around real features, helping mentees translate theory into deployable, end-to-end software workflows.

TEDxITB 9.0

Full-Stack Developer

Bandung, West Java

Nov 2025 – May 2026

- Built end-to-end full-stack features for the official TEDxITB website, handling both server-side logic and client-side interfaces to support complete user flows from account registration to content discovery.
- Owned cross-stack implementation across API integration, database interaction, and responsive UI delivery, collaborating with the IT team via GitHub workflows to ship a reliable, high-traffic public platform.

IEEE ITB Student Branch Batch 2025/2026

Full-Stack Developer

Bandung, West Java

Aug 2025 – present

- Engineered the **IEEE Paper Explorer** feature, building a full data pipeline that fetches, processes, and displays live research paper data directly from the IEEE API, demonstrating strong command of external API integration, data flow architecture, and dynamic content rendering.

- CarbonLink** | NDVI, Next.js, FastAPI | 2nd Place Hackathon @ Hackfest Universitas Ciputra | [GitHub](#) April 2026
- Built an **MRV carbon credit platform** (Next.js 14, TypeScript, Supabase) for Indonesian smallholder agroforestry, supporting polygon-based land registration and real-time IPCC Tier 1 carbon estimation.
 - Engineered an AI tree-detection pipeline (**FastAPI, DeepForest**) on aerial imagery, fusing NDVI and land-area data to compute CO₂e estimates and drive a 5-stage MRV verification flow.
- VeilGuard** | TypeScript, Chromium Extension API | [GitHub](#) May 2026
- Built a **Chromium browser extension** that detects online gambling (judol) content on web pages in real time, scanning the live DOM and flagging matches automatically as pages load.
 - Implemented exact **string-matching** from scratch with the **Knuth-Morris-Pratt** (failure function, O(n+m)) and **Boyer-Moore** (bad-character heuristic) algorithms, packaged as a production bundle (Node.js, pnpm).
- NimonsPoly** | OOP, C++ | [GitHub](#) April 2026
- Architected a **C++ Monopoly-inspired board game** with a modular OOP design (players, tiles, cards, transactions), supporting human/bot players and config-driven dynamic board layouts.
 - Built a **Raylib GUI** with real-time rendering, and interactive tile/asset panels, plus a full game economy: property auctions, rent, skill cards, festival effects, and save/load.
- Voxelith** | C++ | [GitHub](#) March 2026
- Implemented a **C++17 voxel mesh converter** using a recursive octree (Divide and Conquer) with SAT triangle-box intersection and multithreaded construction; cross-platform across macOS, Linux, and Windows.
 - Built a **custom software renderer** from scratch with hand-rolled 4×4 matrix math, painter's algorithm, and depth-sorted face drawing (Raylib), exposing orbit camera, cross-section, explode, and wireframe views.
- YAREU** | Flet (Python), PostgreSQL, MVC Architecture | [GitHub](#) Nov 2025
- Developed a **sustainability platform** unifying buy/sell, donations, and trade-in flows in a single user experience.
 - Implemented modular Marketplace, Donations, and Trade-In subsystems with **MVC architecture** (Flet, Python, PostgreSQL).
- Eigen Pustaka** | Next.js (TypeScript), FastAPI (Python) | [GitHub](#) Nov 2025
- Built a **book discovery engine** with TF-IDF + LSA text search, PCA image search, and personalized recommendations — all linear algebra hand-implemented without external ML libraries.
 - Shipped a full-stack app (**Next.js + TypeScript, FastAPI + Python**) serving semantic text retrieval, image similarity, and recommendation workflows.

RESEARCH PAPERS

- Efficient Transformer Compression in Pre-trained Language Models Through Selective Tensor Rank Reduction** Dec 2025
STEI ITB | [Paper](#)
- Topics: Model Compression, Natural Language Processing, Transformer Efficiency, Tensor Decomposition, Low Rank Approximation, Geometric and Linear Algebra.
- Anomaly Detection in AI Knowledge Graphs: A Discrete Mathematical Framework Against Graph Poisoning** June 2025
STEI ITB | [Paper](#)
- Topics: Knowledge Graphs, AI Security, Discrete Mathematics, Graph Theory, Anomaly Detection.