Contact

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mikoding9@gmail.com

www.linkedin.com/in/jherjati (LinkedIn)
mikoding.com (Personal)

Top Skills

Semantic Search
Transformers.js
Vector Search

Languages

English (Full Professional)
Indonesian (Native or Bilingual)
Arabic (Limited Working)

Certifications

The Comprehensive Android App Development Masterclass
NodeJS - The Complete Guide (MVC, REST APIs, GraphQL, Deno)
Advanced React For Enterprise: React for senior engineers
Android Jetpack Compose: The Comprehensive Bootcamp
Machine Learning with Javascript

Honors-Awards

Bhumandala Award 2023

Jatmiko Herjati

(to be) The Best Geospatial Software Engineer (in Indonesia)
Jakarta Metropolitan Area

Summary

I am a Software Engineer with 8+ years of experience delivering high-impact projects for tech companies and government clients.Specializing in Fullstack Development (React, Next.js, FastAPI), Mobile Development (React Native), and Geospatial Applications (Mapbox, PostGIS, CesiumJS), I help companies build scalable and efficient systems. Currently open to Remote / Part-time Software Engineering roles. Based in Jakarta, Indonesia | Available across timezones (GMT+7)# Key skills: FastAPI, React.js, Next.js, GIS SDKs, Docker, AWS, PostgreSQL/PostGIS. Feel free to connect or message me if you are looking for a committed, delivery-focused engineer.

Experience

Braga Technologies
6 years 5 months

Chief Technology Officer
August 2023 - Present (2 years 6 months)
Bandung, West Java, Indonesia

Conceived and built a comprehensive, end-to-end web application, encompassing robust back-end services, an intuitive front-end interface, and a dynamic database architecture.
Seamlessly integrated a multitude of top-tier third-party systems, culminating in a remarkable 25% enhancement of network throughput and 35% improvements in web vitals scores.
My leadership of a tenacious team of engineers has consistently garnered accolades from other division chiefs and heartfelt acknowledgments from team members who have experienced significant personal and professional growth under my guidance.
Additionally, streamlined the software engineering pipeline, leading to an impressive 50% reduction in time to market and production costs.

Technology Consultant
January 2022 - July 2023 (1 year 7 months)

Bandung, West Java, Indonesia

Chief Technology Officer
September 2019 - December 2021 (2 years 4 months)
Bandung Area, West Java, Indonesia

Work as part of a team of software developers to develop GIS applications and tools and maintain software programs to support the needs of the company and/or clients.

Key Skills: Sharp critical thinking skills, strong written and verbal communication skills, ability to analyze spatial data, problem-solving skills, project management skills, familiarity with statistical analysis; programming skills including Javascript, Python, ArcGIS, SQL, NoSQL, and GIS database design.

Pozibl
Geospatial Software Engineer
April 2025 - August 2025 (5 months)
Greater Perth Area

Contributed to the development of Espresso, a geospatial operations platform that integrates real-time data management and analytics for enterprise clients.

1. Built and maintained backend microservices including Chancy, working alongside ReactJS front-end, Directus CMS, PostGIS, Redis, and AWS services.
2. Designed scalable workflows for geospatial data processing, ensuring efficient data storage, retrieval, and visualization.
3. Implemented caching and task queue mechanisms to improve system responsiveness and reliability.
4. Collaborated with cross-functional teams to refine product requirements, deliver iterative MVPs, and ensure smooth deployment cycles.
5. Enhanced system performance and resilience through optimized API design and containerized service orchestration.

This project strengthened my expertise in geospatial system architecture, full-stack engineering, and cloud-based microservice ecosystems, while delivering value to a global client base.

Badan Nasional Penanggulangan Bencana
Geospatial Software Engineer
November 2024 - April 2025 (6 months)

Jakarta Metropolitan Area

Overview :

Lead full-stack development of the multi-hazard early warning system (mHEWS), combining geospatial analytics, real-time data pipelines, and stakeholder-facing web tools that help BNPB and regional agencies prepare for and respond to disasters.

Key Contributions :

- Architected modular geospatial services that fuse satellite imagery, sensor feeds, and historical hazard datasets to deliver actionable situational awareness dashboards within seconds.
- Delivered responsive, accessibility-minded web applications with React/TypeScript, Mapbox GL JS, and Tailwind, integrating role-based access control and offline-ready workflows for field responders.
- Built scalable APIs and event-driven workers with Node.js, Python (FastAPI), and PostgreSQL/PostGIS to support hazard modeling, alert dissemination, and integration with national data exchanges.
- Implemented CI/CD pipelines (GitHub Actions, Docker, Kubernetes) that cut deployment friction by 60% and enabled reproducible testing of geospatial computations.
- Partnered with disaster risk analysts, emergency planners, and provincial BNPB units to translate operational requirements into product features and measurable adoption outcomes.
- Established observability practices (OpenTelemetry, Prometheus, Grafana) to monitor end-to-end system health, ensuring alert accuracy, uptime SLAs, and rapid incident response.

Salient

Geospatial Software Engineer

April 2024 - March 2025 (1 year)

Greater Chicago Area

As a Geospatial Software Engineer at Salient, I have been instrumental in developing a brand new tiler server that significantly enhances our geospatial data processing capabilities. Transitioning from an existing TIFF server built on Flask to a more robust FastAPI framework, this project has introduced a multitude of improvements and benefits.

Key Contributions:

Transition to FastAPI: I led the migration from Flask to FastAPI, resulting in improved performance and scalability for our tiler server. FastAPI's asynchronous capabilities enhance our ability to process requests efficiently.

Raster Tile Development: This project involves transforming TIFF files into raster tiles, optimizing data delivery and visualization for end users. This change facilitates faster access to geospatial data, enhancing user experience.

Redis Caching Implementation: By integrating Redis for caching, we have significantly reduced response times and improved the overall efficiency of data retrieval, making our services more reliable and responsive.

Simplified Dependency Management: I introduced Poetry for dependency management, streamlining the installation and management of Python packages, which contributes to a more organized development environment.

Efficient Docker Builds: I optimized our Docker build processes, enabling quicker deployment cycles and reducing the complexity of our development workflow.

Furthermore, we successfully integrated the innovative Mapbox raster-color feature, significantly enhancing computational efficiency and reducing memory usage.

Through these enhancements, I am proud to contribute to Salient’s mission of creating the new standard in weather forecasting. This role allows me to combine my GIS expertise with cutting-edge technology, driving forward our capabilities in delivering critical insights to our clients.

Kementerian Pekerjaan Umum dan Perumahan Rakyat (PUPR)

Geospatial Software Engineer

January 2024 - June 2024 (6 months)

Jakarta, Indonesia

The City Information Model (CIM), developed by Kementerian Pekerjaan Umum dan Perumahan Rakyat (PUPR) Indonesia, represents a transformative leap in urban planning and management through advanced 3D GIS technology. This innovative platform leverages state-of-the-art 3D Tiles and Xeokit technologies to create immersive, interactive models of urban environments, enabling detailed spatial analysis and visualization.

CIM is meticulously designed to streamline urban development processes, offering a comprehensive solution for city planners, engineers, and decision-makers. The platform seamlessly integrates diverse datasets—ranging from infrastructure and utilities to environmental information—into a cohesive 3D representation, fostering collaboration and enhancing communication among stakeholders.

Key features of CIM include:

Advanced 3D Visualization: Utilizing 3D Tiles and Xeokit, the platform delivers stunning, high-performance 3D visualizations that allow users to explore complex urban landscapes interactively, facilitating informed decision-making.
Data-Driven Insights: By integrating various data sources, CIM provides valuable insights into urban dynamics, helping to identify trends, optimize resource allocation, and improve urban sustainability.
User-Centric Interface: Designed with user experience in mind, the platform features intuitive navigation and powerful tools for querying and analyzing spatial data, empowering users to derive actionable insights quickly.
Support for Collaborative Planning: CIM promotes collaboration across departments and agencies, breaking down silos and fostering a unified approach to urban management.
With its cutting-edge technology and a focus on enhancing urban governance, the City Information Model stands as a testament to Indonesia's commitment to innovative solutions for sustainable urban development. CIM is not just a tool; it is a visionary platform shaping the future of Indonesian cities.

Ministry of Agrarian Affairs and Spatial Planning/National Land Agency

Geospatial Software Engineer

July 2023 - December 2023 (6 months)

Jakarta, Indonesia

BHUMI, developed by ATR/BPN Indonesia, represents a groundbreaking advancement in web application technology, skillfully designed to revolutionize land management and administration. This sophisticated platform seamlessly integrates cutting-edge geospatial data processing with user-friendly interfaces, offering an unparalleled tool for accurate land mapping, efficient property registration, and transparent land transaction processes. Developed with precision and a deep understanding of the unique challenges in land

administration, BHUMI ATR/BPN stands as a testament to innovative engineering and a commitment to enhancing land governance in Indonesia.

GIZ Indonesia & ASEAN
Geospatial Software Engineer
May 2023 - August 2023 (4 months)
Bali, Indonesia

Solar Energy Estimator for Rooftop in Indonesia, in collaboration with GSMA MIH and Bappenas as the main partner, by utilizing digital technology to support energy transition in Indonesia, using GIS and Machine Learning to mapping the potential of PV rooftop in urban areas.

Demo : https://seeri.braga.co.id/

Hyundai Motor Company (현대자동차)
Full Stack Engineer
January 2023 - June 2023 (6 months)
Jakarta, Indonesia

As a Full Stack Engineer on the Hyundai KIOSK and Queue Management System (QMS) project, I played a pivotal role in developing an innovative kiosk service that enhances customer experience at automotive dealerships. This comprehensive application enables users to reserve services and purchase spare parts through an intuitive touch screen interface, minimizing the need for direct human interaction while facilitating a streamlined service process.

The service reservation flow is designed for user convenience:

User Parking and Reservation: Users can easily reserve services using a multi-screen, intuitive form and make payments through various integrated payment methods.
IoT Integration: The system automatically opens a key box for users to deposit their car keys, while a connected printer generates a service ticket.
Checkout Process: After a designated service period, users can check out using their service ticket and settle any additional payments for spare parts as needed.
In cases where users encounter issues, the application offers an alternative flow that allows them to join a queue, seamlessly connecting them to the QMS.

The Queue Management System features a comprehensive workflow, including a large display for queue status and next-call notifications, as well as

an admin component featuring a web dashboard for monitoring and managing the queue effectively.

This project exemplifies my ability to integrate advanced technologies to enhance operational efficiency and improve user engagement in a complex service environment.

Badan Informasi Geospasial (BIG)
Geospatial Software Engineer
July 2022 - December 2022 (6 months)
Jakarta, Indonesia

SIPULAU (Sistem Informasi Kepulauan), developed by BIG Indonesia, is an innovative web application that epitomizes the fusion of advanced geospatial technology and comprehensive island data management. This platform is meticulously crafted to manage, analyze, and visualize the intricate details of Indonesia's vast archipelago, offering an essential tool for policy makers, researchers, and environmentalists. With its robust database and intuitive interface, SIPULAU provides unparalleled insights into the geographical, ecological, and socio-economic aspects of the islands, thereby playing a crucial role in strategic planning, sustainable development, and conservation efforts across Indonesia's diverse island landscapes.

Telkom Indonesia
Back End Engineer
June 2022 - October 2022 (5 months)
Bandung, West Java, Indonesia

As a member of Operation Team, responsible for various services for MyIndihome application.

Badan Riset dan Inovasi Nasional RI (BRIN RI)
Full Stack Engineer
July 2021 - December 2021 (6 months)
Jakarta, Indonesia

The Ritech Expo 2021, an annual online event hosted by BRIN Indonesia, stands as a beacon of technological and scientific collaboration, showcasing a dynamic virtual exhibition platform that transcends traditional boundaries. This website ingeniously blends the convenience of online meetings with a rich tapestry of interactive content, including immersive 3D booth experiences, that brings together innovators, academics, and industry leaders. Designed to foster engagement and knowledge exchange, the Ritech Expo 2021

serves as a hub for cutting-edge research, groundbreaking inventions, and thought-provoking discussions, making it a cornerstone event for the scientific community and a testament to BRIN Indonesia's commitment to advancing science and technology on a global stage.

Propspotter
Geospatial Software Engineer
July 2019 - February 2021 (1 year 8 months)
Greater San Diego Area

MERN Stack Developer, MongoDB as spatial database (migrate to Postgis), Express as backend (migrate to Fastapi), React as frontend, Mapbox as Mapping API

Badan Riset dan Inovasi Nasional RI (BRIN RI)
Full Stack Engineer
July 2020 - December 2020 (6 months)
Jakarta, Indonesia

The Inovasi Indonesia Expo 2020, an annual online event hosted by BRIN Indonesia, stands as a beacon of technological and scientific collaboration, showcasing a dynamic virtual exhibition platform that transcends traditional boundaries. This website ingeniously blends the convenience of online meetings with a rich tapestry of interactive content, including immersive 3D booth experiences, that brings together innovators, academics, and industry leaders. Designed to foster engagement and knowledge exchange, the Inovasi Indonesia Expo 2020 serves as a hub for cutting-edge research, groundbreaking inventions, and thought-provoking discussions, making it a cornerstone event for the scientific community and a testament to BRIN Indonesia's commitment to advancing science and technology on a global stage.

HERE Technologies
Geospatial Software Engineer
January 2020 - June 2020 (6 months)
Jakarta, Indonesia

As a Full Stack Geospatial Software Engineer on the HERE Maps POIN project, I contributed to the development of a comprehensive data acquisition platform tailored for the Southeast Asia region. This innovative application facilitates efficient data collection and validation processes for surveyors, validators, and data managers, all while incorporating engaging gamification elements.

Key Features of the Application:

Mobile Data Collection: Surveyors can collect field data through a mobile app, with geotagged photos serving as critical components for accurate data representation.
Real-Time Validation: Validators can review and validate data to ensure compliance with HERE Maps' standards, supported by a user-friendly web dashboard. They have the authority to reject data that does not meet requirements.
Data Management: Data managers can gather all quality-controlled data, ready for submission to HERE Maps, facilitated through a dedicated web dashboard.
Gamification Mechanism: The POIN platform features a gamification system that encourages healthy competition among collectors and validators. Performance metrics are tracked, and finance managers occasionally organize timed competitions with prizes, such as mobile devices, to reward top performers. The tagline, "Change your time into POINT," reflects the platform's point-based incentive system.
Technical Stack:

The frontend consists of a mobile application and a responsive web dashboard.
The backend is built on Node.js, with PostGIS utilized for spatial data management.
Role-Based Access Control (RBAC) is implemented to ensure that country-specific administrators can manage roles and permissions effectively.
This project underscores my ability to integrate GIS technology with mobile and web applications, enhancing data collection and validation processes in the geospatial domain while also fostering engagement through gamification.

CRAPCO INDONESIA
Full Stack Developer
June 2019 - December 2019 (7 months)
Greater Bandung

I handle the entire technology used, starting from the backend and sql database in AWS, web front end, and mobile applications using flutter. Crapco is a Startup that deals with Waste Management

mapid.io

1 year 6 months

Geospatial Software Engineer
May 2019 - August 2019 (4 months)
Bandung Area, West Java, Indonesia

Consistently demonstrated the ability to bridge the gap between user-centric interfaces and data-driven solutions.
Crafting visually appealing and responsive web applications using React, enabled me to create immersive and seamless user experiences.
Design, optimize, and maintain robust database systems, Postgres with Postgis, ensuring data integrity and accessibility.

Geospatial Software Developer
March 2018 - April 2019 (1 year 2 months)
Bandung Area, West Java, Indonesia

Simply build geo.mapid.io from scratch, of course with many supporting library such as Mapbox, Tabulator, etc

PT. Kreasi Handal Selaras
Spatial Data Scientist
September 2018 - January 2019 (5 months)
Greater Jakarta Area, Indonesia

Analyse Sinarmas Forestry Unmanned Aerial Vehicle (UAV) data to reach hight efficiency and effective remote sensing data processing.

Aerovisi Utama
Geographic Information Systems Analyst
August 2017 - November 2017 (4 months)
Greater Jakarta Area, Indonesia

PTSL, Pendaftaran Tanah Sistematik Lengkap area Tangerang Selatan.
Worked with AutoCAD Map3D.

Education

Institut Teknologi Bandung
Master of Engineering - MEng, Informatics Engineering · (August 2021 - July 2023)

Institut Teknologi Bandung
Bachelor of Science - BS, Geodesy and Geomatics Engineering · (August 2013 - October 2017)

SMA Negeri 1 Yogyakarta

Natural Sciences · (July 2010 - June 2013)

SMP Negeri 5 Yogyakarta

Junior High School · (July 2007 - June 2010)