AURELIO JEREMI BASTEN SITINJAK
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PROFESSIONAL SUMMARY

Geomatics Engineering graduate specializing in **spatial data analytics, GIS programming, and LiDAR applications,** with experience in the **coal mining industry** and at the **Ministry of Agrarian Affairs & Spatial Planning.** Recognized as a **Top 10 National Finalist in the ASEAN Geospatial Challenge 2024.** Skilled in applying **Python, ArcGIS, and remote sensing tools** to deliver accurate, data-driven insights for mapping, environmental management, and strategic decision-making. Adept at **data visualization, problem-solving, and cross-functional collaboration.**

WORK EXPERIENCES

Geographic Information System (GIS) Analyst, PT. Avirtech Solusi Teknologi (February 2025 – Present)
- Lead the development of **real-time flight tracking and visualization features** for Biota Drone Monitoring Application, enabling users to monitor and analyze drone spraying routes with improved accuracy and user interactivity.
- Collaborate closely with **Project Managers and Data Engineering teams** to extract and interpret data insights from social media and news sources, integrating predictive results into intuitive dashboards and data cards within the web application.
- Support the **web application development** process for BNI Life and Biota Drone Tracking Systems, using **Laravel (PHP)** and **React.js** frameworks to implement dynamic, data-driven frontend interfaces.
- Conduct **LiDAR, VTOL, and SLAM data processing,** ensuring high-quality spatial data integration into digital mapping and visualization workflows.
- Strengthened cross-functional communication by translating technical findings into actionable insights for internal and external stakeholders.

Presales Engineer, *PT Smart Tech Solution International* (September – November 2024)
- Established and maintained strategic partnerships with multiple **CHCNAV dealers across Indonesia,** supporting PT Smartech's role as the **main national distributor.**
- Processed and presented **VTOL, SLAM, and Aerial LiDAR** data to clients, ensuring high-quality outputs for mapping and surveying projects.
- Operated **DJI M300, DJI M3M, and VTOL P330 CHCNAV** drones for aerial data acquisition, contributing to accurate geospatial data collection and project efficiency.
- Delivered **technical training sessions** to client teams on **PIX4Dfields data processing** for agricultural and plantation analysis, enhancing user adoption and data accuracy.
- Collaborated with project stakeholders to prepare and **pitch product demonstrations and technical presentations,** aligning CHCNAV solutions with client needs and project goals.

Engineer Intern, *PT Adaro Energy Indonesia Tbk* (July – August 2023)
- Utilized **RTK GPS** for high-precision field monitoring and data collection, ensuring full compliance with mine planning designs and contributing to enhanced operational efficiency.
- Delivered **volumetric analysis** of truck counts and overburden using **Riegl VZ-2000i Terrestrial Laser Scanner (TLS),** improving resource allocation accuracy and supporting inventory management decisions.
- Conducted detailed **incident site assessments** involving heavy-duty machinery, providing reliable spatial data that informed safety reviews and preventive measures.

- Developed **hydrological and contour maps** for infrastructure projects, including PT PPA's New Dormitory area in Maburai, supporting data-driven water management and construction planning.
- Executed **stockpile volume calculations and 3D modeling** using **GEOVIA Surpac, MineScape, and RiScan Pro,** and processed **aerial imagery in Agisoft Metashape** to generate high-resolution topographic maps that optimized project planning workflows.

Student Intern, *Ministry of Agrarian Affairs and Spatial Planning* (June – August 2022)
- Executed **high-precision land parcel measurements** for PTSL registration using **GPS RTK, Total Station (Topcon), and Waterpass,** delivering verified geospatial data that improved cadastral accuracy and supported legal land documentation.
- Developed and digitized **village and cadastral maps** using **AutoCAD and ArcGIS,** providing critical geospatial layouts that enhanced spatial planning and administrative decision-making processes.
- Facilitated **land staking and elevation surveys,** applying advanced geomatics methodologies to strengthen the Ministry's regulatory compliance and land management efficiency.
- Collaborated with survey teams and local administrative offices to **validate spatial datasets and resolve mapping discrepancies,** ensuring data integrity across multiple cadastral zones.

LEADERSHIP AND ORGANIZATION EXPERIENCES

Head of Social Media Strategist, *ITS Model United Nations Club* (January – December 2023)
- Led the **strategic development of digital content and campaign initiatives,** using **data-driven insights** to increase engagement across social media platforms and enhance the organization's visibility.
- Supervised a small team of content specialists, coordinating creative direction and analytics reporting to improve communication strategies and outreach performance.

EDUCATION BACKGROUND

Bachelor of Engineering, *Institut Teknologi Sepuluh Nopember* (September 2020 – August 2024)
- Major in Geomatics Engineering, final GPA 3.24/4.00
- **Undergraduate Thesis:** *Estimating Carbon Stock in Teak Forests Using LiDAR*
  Utilized LiDAR data to segment tree stands and validate carbon stock estimates, improving forest management accuracy and spatial data reliability.
- **Achievements and Activities:**
  Top 10 National Finalist – *ASEAN Geospatial Challenge 2024*
  Teaching Assistant – *Department of Geomatics Engineering (2024),* supporting practical classes and mentoring students in GIS data processing and analysis.

KEY SKILLS AND PROFICIENCY

Technical & Analytical Skills
- GIS & Remote Sensing, LiDAR & TLS, 3D Mapping & Spatial Data Analysis
- Python (pandas, geopandas), SQL, Data Visualization & Reporting
- Project Coordination & Cross-Functional Collaboration

Tools & Software
- ArcGIS, QGIS, AutoCAD, GEOVIA Surpac, MineScape, Agisoft Metashape
- Power BI, Excel (PivotTables), PIX4Dfields, DJI Drone Systems, GPS RTK

Certifications

- Machine Learning with Python (2024)
- 3D Point Cloud Data Processing (2024)

Languages

- English (Proficient), Bahasa Indonesia (Native)