MUHAMMAD RIZKI ISLAMI

📞 +62 812-8445-5412 | ✉ muhammadrizkiislami28@gmail.com | 📍 Lebak, Banten

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PROFILE SUMMARY

I hold a Master's degree in Urban and Regional Planning with a GPA of 4.0. My expertise includes spatial data analysis, GIS, and spatial modelling. I am proficient in GIS tools, particularly ArcGIS and QGIS, and have a proven track record in environmental and urban planning. Notable achievements include urban modelling, fire hazard analysis, zoning, and the development of WebGIS platforms. I specialize in spatial data analysis formats such as KML, SHP, and CSV, as well as land use analysis and modelling, satellite image processing, remote sensing, and the visualization of spatial and statistical data. My focus is on sustainable development, with a strong commitment to attention to detail, adherence to deadlines, and budget planning. I excel in collaboration and have a passion for using geospatial technology to enhance sustainability and contribute to climate change mitigation. Additionally, I have a deep interest in applying machine learning to geospatial analytics and am always seeking new technologies, tools, and methodologies to advance my skills and contribute to innovative solutions.

CORE COMPETENCIES

- **Scientific Writing & Publication:** Academic writing, literature review, synthesis of findings, Mendeley, APA/Chicago styles
- **GIS & Spatial Analysis:** ArcMap, ArcGIS Pro, QGIS, Fragstats, Envi, SHP/KML/CSV formats
- **Data & Statistical Tools:** Excel, SPSS, Smart PLS, NVivo
- **Presentation & Communication:** MS Office Suite, PowerPoint, Report Writing, Stakeholder Engagement
- **Web & Visualization Tools**: HTML/CSS (basic), 3D City Engine, SketchUp, AutoCAD
- **Language Proficiency:** Bahasa Indonesia (native), English (advanced reading, writing, and speaking)

EDUCATION

Diponegoro University

- Master of Urban and Regional Planning | 2023 – 2024
  Thesis: *Urban Expansion and Physical Fragmentation of Built-Up Land in Semarang City*
  GPA: 4.00
- Bachelor of Urban and Regional Planning | 2018 – 2022
  Thesis: *Rural-Urban Transformation and Urban Growth Scenario Using Cellular Automata in Lebak District - Banten Province* (https://iopscience.iop.org/article/10.1088/1755-1315/1264/1/012033)
  GPA: 3.76

PROFESSIONAL EXPERIENCE

Research Assistant | Diponegoro University
July 2023 – Present

- Conducted spatial, statistical, and demographic analysis to evaluate land use efficiency and patterns of urban sprawl in growing metropolitan areas.
- Wrote literature reviews and prepared drafts for international journal publications.

Research Assistant | MARS Architect
May 2025 - Present

- Developing responsive WordPress site for BaliBiennial Events (link).
- Created survey instruments to mapping vacant buildings in Denpasar

Research Assistant | MARS Architect & Diponegoro University
June 2024 – March 2025

- Organized an international student competition on the planning of the Indonesian capital city.
- Managed website development (HTML/CSS), weekly announcements, and content editing for lecture series.

Research Assistant | Public Works Polytechnic
September 2024 – December 2024

- Analyze user acceptance of fire emergency reporting applications using SMART PLS.
- Wrote project reports with academic structure and visuals (charts/tables).

Research Assistant | Public Works Polytechnic
September 2023 – December 2023

- Conducted surveys on fire safety needs and co-developed prototype reporting app.
- Synthesized findings into structured technical reports.

Expert Staff | Tourism Masterplan for West Lombok
May 2023 – December 2023

- Prepared base maps and conducted spatial analysis to identify strategic zones.
- Contributed to the development of sustainable tourism planning.

Research Assistant | Diponegoro University & Public Works Polytechnic
July 2022 – December 2022

- Created a simple WebGIS integrating 3D models for WSUD.
- Conducted fire hazard analysis using GIS tools.

Internships & Freelance Roles

- Conducted RDTR surveys and base map drafting | ATR/BPN (2021)
- Drafted thematic maps and analyzed GIS data | PUPR Kab. Lebak (2020)
- Assisted in industrial center zoning for tobacco in Brebes (2022).

SELECTED PROJECTS

- Toward Smart Fire Risk Mitigation in Urban Settlements: Modelling Community Technology Acceptance Using UTAUT and Capacity Variables (in Submission at IRSA Proceeding)
- Urban Expansion and Fragmentation Analysis: Assessed the expansion and physical fragmentation of built-up land in Semarang City using advanced spatial metrics (master Thesis).
- Rural-Urban Transformation and Urban Growth Scenario Using Cellular Automata in Lebak District - Banten Province (link)
- Fire Hazard Mapping: Conducted GIS-based analysis to identify fire-prone zones in Semarang City (link).