FIDYA RISMAYATIKA

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Introduction

I am a dedicated geospatial specialist with a master's degree in Remote Sensing Science and Technology and a bachelor's degree in Geography. With several years of education and experience in geospatial data analysis, satellite remote sensing, GIS integration, and research writing, I have developed a robust skill set in spatial – temporal analysis, satellite image processing, climate data processing, and spatial data visualization. My GIS/RS software expertise and strong analytical and problem-solving abilities have allowed me to contribute effectively to various environmental and industrial projects. I am passionate about leveraging geospatial technologies to address real-world challenges and am eager to bring my skills to understand our beloved Earth further.

Work Experience

Hydrology Remote Sensing Laboratory – Center for Space and Remote Sensing Research Taiwan
Research Assistant (Master's Student) *September 2022 – July 2024*

- Aided Head of the Laboratory (Prof. Liou Yuei-An) in preparing class materials and writing for publications.
- Conducted research and data processing related to climate-meteorological-agricultural implications in hydrological cycles, drought event characteristics, and agricultural productivity using remote sensing and GIS data.
  Related Activities:
  1. Processed various satellite imagery, including Landsat 7, 8, 9, Sentinel-2, and MODIS, to assess surface dryness using vegetation indices and to generate land use and land cover (LULC) maps by applying machine learning algorithms such as Random Forest, Minimum Distance, Maximum Likelihood, and Gradient Boosting.
  2. Visualized climatic conditions for drought and typhoon assessments using climate and meteorological datasets such as TerraClimate, CHIRPS, AMSR2, ASCAT, TRMM, and RSMC.
  3. Created visualizations for poster presentations at conferences and competitions, including the ICEO & SI conference and the CSRSR Poster Competition (Third winner of CSRSR Poster Competition 2023).

Department of Creative Works, Spatial Planning, and Land Affairs - DKI Jakarta
CAD/CAM-GIS Operator *March 2022 – July 2022*

- Worked under *Rencana Detail Tata Ruang* (Detailed Spatial Planning) 2022 project for DKI Jakarta with daily, weekly, and monthly progress reports.
- Digitized government-owned public facilities in 13 districts within 5 municipalities and edited road networks and attributes in 2 municipalities to update Jakarta Satu's geospatial database.
  Related Activities:
  1. Mapped and updated categories of urban green spaces, district-level public facilities (such as educational, healthcare, religious, and sports centers), and military assets in DKI Jakarta through satellite image interpretation (using SPOT 6 & 7 imagery) and corrected topology errors in the mapped objects for validation before uploading them into the Jakarta Satu database.
  2. Redefined and renamed up to 60 road networks in accordance with the Decree of the Governor of DKI Jakarta Number 565 (2022).

Non-contract Works
Freelance GIS Associate – Work from Home *Project-based*

a. Worked for Plantation Land Use Balance project (Banten Province National Land Agency - 2021).
   - Digitized four main commodities plantations in Pandeglang Regency (coconut, palm oil, rubber, and coffee) and synchronized the existing plantation dataset from Department of Agriculture with the current digitation.
b. Worked for Bekasi Regency Land Use Mapping project (Bekasi Regency National Land Agency - 2019).
   - Digitized land use map in 10 subdistricts of Bekasi Regency based on LULC Classification for 1:5.000 scale.

Education

National Central University *Taoyuan City,Taiwan*
Master of Science in Remote Sensing Science and Technology *September 2022 – June 2024*

- GPA: 4.29/4.30
- Supervisor: Professor Liou Yuei-An, Hydrology Remote Sensing Laboratory.
- **Related Courses:** Digital Image Processing for Remote Sensing, Ocean and Atmospheric Data Processing and Scientific Visualization, Spatial Data Analysis and Applications, Remote Sensing and Image Interpretation.
- **Thesis title:** *Meteorological Drought-informed Surface Dryness Index for Spring Drought Spatial-Temporal Variability Assessment in Taiwan.*

University of Indonesia *Depok Municipality, West Java, Indonesia*
Bachelor of Science in Geography *August 2016 – January 2020*

- GPA: 3.61/4.00
- Undergraduate student in the Faculty of Mathematics and Natural Sciences, Department of Geography. Major: Geography, Minor: Remote Sensing-Geographic Information System & Physical Geography.
- **Related Courses:** Geographic Information System (GIS), GIS Modelling, Spatial Database Management, Three-Dimensional Modelling, Radar Remote Sensing, Multi and Hyperspectral Remote Sensing, Land Use Dynamics.
- **Thesis title**: *Spatial Pattern of Dry Area in Agricultural Land Based on Vegetation Index in Magetan Regency.*

Technical Skill

- **Remote sensing and geographic information system software:**
  ArcGIS PRO, ENVI, QGIS, ASF Maps, ILWIS, Avenza Maps, Surfers, OpenStreetMaps, Google Earth Engines, SNAP
- **Aerial photography software:**
  Agisoft, Pixl4D, Autel Explorer (Experienced in operating DJI Phantom 4 & Autel Robotics EVO II)
- **Illustration software:**
  Clip Studio Paint, Adobe Photoshop, Corel Draw
- **Programming languages:**
  MATLAB, JavaScript (For Google Earth Engines), HTML, CSS
- **Others:**
  Office 365 Suites, Google Suites, draw.io

Language

- Bahasa Indonesia and Javanese : Native
- English : Upper Intermediate
  B2 CEFR (TOEFL ITP : 557,TOEIC L&R : 830)
- Chinese (Traditional) & Japanese : Basic

Publication

- **Rismayatika, F.**, Saraswati, R., Ash Shidiq, I. P., Taqyyudin. (2020). Identification of Dry Areas on Agricultural Land using Normalized Difference Drought Index in Magetan Regency. IOP Conference Series: Earth and Environmental Science. 540. 012029. 10.1088/1755-1315/540/1/012029.
- **Rismayatika, F.**, Ikhsanti, H., & Tirani, N. R. (2019). Identifikasi Perubahan Salinitas Air Di Perairan Sekitar Pembangunan Reklamasi Citraland City Kota Makassar Menggunakan Citra Landsat 8. Seminar Nasional Penginderaan Jauh 2019.
- Faris, M., **Rismayatika, F.**, & Putri, M. F. (2019). Klasifikasi Daerah Aliran Sungai Berdasarkan Parameter Kondisi Lahan Menggunakan Data Penginderaan Jauh dan Sig Studi Kasus di DAS Arau, Kota Padang. Seminar Nasional Geomatika. 3. 601. 10.24895/SNG.2018.3-0.1018.