

Alfa Nugraha Pradana

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Google scholar: <https://scholar.google.com/citations?user=ZH5mDMgAAAAJ>

As an experienced software developer with strong background in data science, machine learning, spatial analysis, remote sensing, and cloud computing, I am passionate about applying my skills to address pressing issues like climate change, land use planning, and public health. I am eager to expand my career and take on roles such as Data Scientist, Data Analyst, Data Engineer, System Analyst, or AI/ML Engineer where I can leverage my expertise to drive impactful solutions.

Education

PhD Candidate, Infectious & Tropical Diseases Epidemiology, Monash University Indonesia

Master of Science, Statistics and Data Science IPB University, Bogor, Indonesia, 2024

Bachelor of Science in Computer, Computer Science IPB University, Bogor, Indonesia, 2012

Employment Experience

CIFOR-ICRAF, Bogor, Indonesia

August 2019 – October 2024

NRM System Analyst

- Establish and lead a team of tool developers to produce high-quality computer-based tools for sustainable landscape management.
- Collect, integrate, analyze various of data as a main resource to examine the eligibility of natural resource management tools for green growth planning in Indonesia and other country in Southeast Asia.

ICRAF (World Agroforestry), Bogor, Indonesia

August 2013 – July 2019

NRM Tool Programmer

- Design, build, test, and document the process of Land Use Planning for Multiple Environmental Services (LUMENS) with combining sets of modular application and many programming languages, such as C++, Python, R, and HTML.
- Contribute to review the BAU/Baseline RAD-GRK (District Action Plan on Emissions Reduction) documents and analyze the land-based sector data for 34 provinces in Indonesia.

Teaching Experience

IPB University, Bogor, Indonesia

September 2023 – November 2023

Technical Trainer

- Training on Machine Learning and Data Mining in Data Science Capabilities: Basic concepts of data analysis, Pre-processing data, Unsupervised learning, Supervised learning, Time series and forecasting, Deep learning, Text analytics, Network analysis, Data visualization and interpretation

IPB University, Bogor, Indonesia

January 2022 – December 2023

Lecture Assistant

- Teaching Statistical Programming, Statistical Data Management, Data Exploration and Visualization

Other Trainings, Seminars, and Workshops

IIASA, Laxenburg, Austria

September 2014

Research School

- Participated in research school on GLOBIOM modeling under IIASA's Tropical Future Initiatives (TFI) and studied how to downscale the global data
- Collect data and information from workshops in Jambi and Samarinda, formulate next steps

for finalizing GLOBIOM into INDOBIOM
ITS, Surabaya, Indonesia
Advanced GIS Training

April 2014

- Attended in course titled *Land use modeling based on Cellular Automata-GIS using LanduseSim for Urban and Regional Planning* and learn how to analyze the spatial data

ICRAF, Bogor, Indonesia
SWAT Training

July 2014

- Participated in hydrological modeling training using SWAT software by Limnology Research Center (LIPI) and gathered knowledge about hydrological data

Skills

- **Programming Languages:** R, Python, C++, HTML, CSS, JavaScript
- **Data Visualization Tools:** Shiny, Streamlit, Earth Engine Apps, Tableau, Power BI
- **Databases:** MySQL, PostgreSQL, MariaDB, MongoDB, Geodatabase

Honors, Awards, and Certifications

ACA Cloud Computing Certification
Alibaba Cloud, issued May 2024
Credential ID IACA01240500118126L

Data Science Certification
IFPRI, issued Jan 2021
Credential ID 3PCGP6SC65WP

Publications

Journal Articles

- Pradana A**, Oktaviani M, Prameswari H et al. *A study protocol for a baseline community-based cross-sectional study to investigate malaria and dengue transmission dynamics in a development area of new capital city, Indonesia*. Wellcome Open Res 2026, 11:89
- Pradana, A.N.**, Djuraidah, A., and Soleh, A.M. 2023. *Land Use Change Modelling Using Logistic Regression, Random Forest and Additive Logistic Regression in Kubu Raya Regency, West Kalimantan*. Forum Geografi. 37(2), 149-163.
- Pradana, A.N.**, Fathina, A.N.F., Fitrianto, A., Sartono, B. and Oktarina, S.D. 2022. *Analysis of the Effectiveness of Flash Floods Disaster Mitigation in Java Island*. Sriwijaya Journal of Environment, 7(2), pp.91-99.

Popular Scientific Article

- <https://theconversation.com/gejala-chikungunya-sulit-dikenali-seberapa-siap-sistem-kesehatan-kita-264263>
- <https://theconversation.com/dampak-pembangunan-ikn-berisiko-picu-penularan-malaria-pemerintah-harus-siapkan-mitigasi-250916>

Knowledge Products

- <https://rpubs.com/alfanugraha>, Course Materials using Quarto and Markdown publishing system. The courses consist of Computational Statistics, Statistical Data Management, Network Analysis, Spatial Statistics and Machine Learning.
- <http://sta1111.stats.id>, The Introductory of Statistics and Data Analysis using Shiny Application.
- <https://statistika-spasial.github.io/book>, The Bookdown of Statistical Modelling on Geospatial Data
- <https://irio-anovasion.streamlit.app>, Analytical Dashboard Table Inter Regional Input Output
- <https://ahp.lahanuntukkehidupan.id/>, AHP Simulation Dashboard using R Shiny