Deri Siswara

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PROFESSIONAL SUMMARY

Research and Data Analyst with expertise in Statistics and Economics. Proven track record in survey design, dashboard development, impact assessment, and econometric modeling across government, private sector, and academic institutions. Skilled at translating complex data into actionable insights for stakeholders, with experience spanning banking, food security, energy policy, and competition analysis.

PROJECTS

Dashboard Development for Psychology Test Data Sep 2025 — Oct 2025
Data Analyst *Telkom University*

- Designed and developed interactive dashboards using R and Quarto to analyze psychology test results for 24000+ students
- Automated data processing pipelines
- Created visualizations for test score distributions, correlation analysis, and performance benchmarking to support academic counseling decisions
- Delivered user-friendly dashboard deployed via web platform, enabling faculty to access real-time insights for student assessment

Non-Cash Social Assistance Monitoring Survey 2025 May 2025 — Oct 2025
Lead Researcher *Bank Indonesia*

- Led development of comprehensive technical guidelines for nationwide survey implementation across 34 provinces, establishing standardized protocols for 46 Regional Offices
- Conducted in-depth statistical analysis of survey results, generating actionable insights for Bank Indonesia's social assistance policy evaluation
- Designed and deployed parameterized result reports for regional offices, enhancing data accessibility and usability.

Implementation Study of Food Safety in APEC Regions May 2025 — July 2025
Consultant/Data Analyst *APEC Project: SCSC_102_2024T*

- Analyzed survey data from 8 APEC economies on food safety management systems for street vendors and SMEs, identifying best practices and implementation gaps
- Delivered data-driven recommendations at stakeholder workshop in Bali (July 22-23, 2025), influencing regional food safety policy framework
- Synthesized findings into policy briefs for government agencies across APEC member economies

Outlier Detection Study in Banking Report Data Jun 2024 — Mar 2025
Consultant/Data Analyst *Bank Indonesia*

- Researched and implemented 7+ statistical methodologies for outlier detection in daily and monthly banking report data, processing datasets of 100K+ records
- Conducted knowledge-sharing sessions with 30+ Bank Indonesia staff, establishing new data quality standards across reporting systems
- Developed comprehensive technical documentation and R scripts for automated outlier detection deployment

Socio-Economic Impact Analysis of Subsidized Fuel Restrictions Feb 2024 — Aug 2024
Consultant/Data Analyst *PT Pertamina (Persero)*

- Conducted comprehensive impact assessment of subsidized fuel policy changes using econometric modeling, analyzing effects on poverty rates, unemployment, inflation, and GDP growth
- Applied microsimulation techniques to quantify policy scenarios with SUSENAS survey data, providing evidence-based recommendations for 50+ million households
- Delivered strategic insights to Pertamina executives through interactive dashboards and policy briefs, informing national fuel subsidy reform strategy

Food Price Analysis May 2023 — Nov 2023
Consultant/Data Analyst *KPPU (Indonesian Competition Commission)*

- Analyzed price transmission mechanisms for 10 strategic food commodities using Nonlinear Autoregressive Distributed Lag (NARDL) models

- Identified asymmetric price adjustments and market inefficiencies, providing empirical evidence for competition policy interventions
- Delivered findings to KPPU commissioners, contributing to anti-monopoly enforcement strategy in food supply chains

In House Training (IHT) - Advanced Statistics and Econometrics Oct 2022
Trainer *Bank Indonesia Institute (BINS)*
- Designed and delivered intensive training program on statistics and econometrics for 30+ Bank Indonesia researchers
- Taught advanced courses including univariate time series, multivariate time series (VAR/VECM), and panel data analysis using RStudio

Customer Classification and Sector Mapping Study Feb 2022 — Aug 2022
Junior Data Analyst *IPB University and PT. Pegadaian*
- Developed predictive model for customer default probability using logistic regression, achieving 85% classification accuracy on 50K+ customer records

WORK EXPERIENCE

Adjunct Lecturer Feb 2025 — Now
Perbanas Institute *Jakarta, ID*
- Teaching Machine Learning and Probability & Statistics courses in the Data Science Program, Faculty of Information Technology
- Created hands-on lab sessions using Python, R, and Quarto.

Assistant Lecturer Feb 2021 — Dec 2024
IPB University *Bogor, ID*
- Taught 5 courses across undergraduate and graduate programs: General Economics, Econometrics I & II, Quantitative Methods, and Empirical Finance
- Developed practical case studies using R and Stata, enhancing students' applied analytical skills

SKILLS

- **Programming Languages**: R (advanced), Python (proficient), SQL, HTML/CSS, Markdown, Typst
- **Statistical Software**: RStudio, EViews, Stata, SPSS, Jupyter Notebook
- **Data Visualization & BI Tools**: Tableau, Looker Studio, Quarto, ggplot2, Plotly
- **Machine Learning**: scikit-learn, TensorFlow basics, XGBoost, Random Forest
- **Econometric Methods**: Time series analysis, Panel data, NARDL, VAR/VECM, Logistic regression

EDUCATION

IPB University Bogor, ID
MSc in Statistics and Data Science (2024)
Bachelor of Economics (2020)

PUBLICATIONS

Classification Modeling with RNN-based, Random Forest, and XGBoost for Imbalanced Data: A Case of Early Crash Detection in ASEAN-5 Stock Markets 2024
Scientific Journal of Informatics, 11(3), 569-582

Metode Kuantitatif dengan RStudio 2024
Book *IPB Press*

Aplikasi Model Ekonometrika dengan RStudio 2024
Book *IPB Press*

Regional Tourism Development in Nusa Tenggara Barat: Maximizing Local Economic Development 2022
ExceS: Economics Social and Development Studies, 9(2), 107-127

HONORS & AWARDS

- **Jabar Future Leaders Scholarship** - Provincial government scholarship for graduate studies (Sep 2021)
- **Oral Presentation** - 12th International Conference on Islamic Economics & Finance (Aug 2020)