# Deri Siswara

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## PROFESSIONAL SUMMARY

Economist who codes. Specialized in survey design, econometric modeling, and data visualization. Experience across government, private sector, and academia.

## PROJECTS

**Economic and Social Impact Analysis of East Kalimantan Railway Development**                   Aug 2025 — Oct 2025
Data Analyst/Report Writer                                          *Bank Indonesia - East Kalimantan Regional Office*

- Conducted comprehensive economic and social impact assessment of railway development phases based on East Kalimantan Railway Master Plan 2023
- Applied Working-Leser model and regression analysis to evaluate regional economic transformation potential and long-term development prospects
- Performed SWOT analysis to formulate alternative priority development scenarios, considering energy transition impacts and trade partner economic shifts
- Delivered analytical reports informing infrastructure investment strategy for East Kalimantan and broader Kalimantan regional development

**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
Consultant/Data Analyst

May 2023 — Nov 2023
*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
Trainer

Oct 2022
*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
Junior Data Analyst

Feb 2022 — Aug 2022
*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
Perbanas Institute

Feb 2025 — Now
*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
IPB University

Feb 2021 — Dec 2024
*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
Book

2024
*IPB Press*

**Aplikasi Model Ekonometrika dengan RStudio** 2024

Book *IPB Press*

**Regional Tourism Development in Nusa Tenggara Barat: Maximizing Local Economic Development** 2022

EcceS: 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)