

# Josh Manuel Kristianto

josh.mkristianto@gmail.com | github.com/joshmanuelkristianto | linkedin.com/in/joshmanuelkristianto/

## WORK EXPERIENCE

### PT. Trias Mandiri Persada

July 2024 - September 2024

*Data Engineer Intern*

*Jakarta*

- Contributed to implementing new data-driven strategies that helped the manufacturer prevent future malfunctions, improve resource utilization, and boost overall production performance.
- Collected and integrated real-time operational data from PLC (Programmable Logic Controller) systems into Microsoft SQL Server for centralized data management.
- Optimized SQL databases to ensure high data integrity and support performance analytics across manufacturing systems.
- Developed a real-time dashboard to visualize system efficiency, enabling engineers and stakeholders to monitor key metrics.
- Automated industrial processes using Ladder Logic programming, contributing to improved production reliability and reduced manual intervention.

## EDUCATION

### Bina Nusantara University (BINUS)

August 2023 - 2027 (expected)

*Bachelors in Data Science*

*Jakarta*

- Current GPA : 3.56/4.00
- Relevant Courses: Machine Learning, and Deep Learning, Data Mining, Data Visualization, Text Mining
- Member of Data Science Club

### SMAK 6 Penabur Jakarta

July 2020 - May 2023

Major in Science (IPA)

*Jakarta*

## PROJECTS

### Options Pricing Heatmap Using Black-Scholes Monte Carlo Model

- Built a tool combining Black-Scholes and Monte Carlo simulations to price derivatives, visualize risk exposure, and dynamically adjust heatmap parameters.
- Enabled historical price plots, Sharpe ratio calculation, return distributions, and realized volatility for selected tickers over custom time ranges.
- Provided instant recalculation and visualization of pricing scenarios, supporting deeper analysis of non-linear market behaviors and option risks.

### S&P 500 Pairs Trading Using Mean Reversion

- Designed a pipeline to identify and test cointegrated equity pairs in the S&P 500 using correlation analysis, Engle-Granger, and Johansen tests.
- Built z-score-based entry/exit signals with optimized thresholds, stop-loss, and take-profit levels.
- Employed backtesting to evaluate historical performance and validate strategy robustness across multiple time periods.

### Bank Credit Loan Classification using XGBoost

- Cleaned and explored loan applicant data, encoded categorical variables, and selected key features to enhance model quality.
- Built and fine-tuned an XGBoost classifier achieving 93% accuracy in predicting loan approvals.
- Evaluated model performance using precision, recall, ROC-AUC, and confusion matrix to ensure reliability and actionable insights.

## SKILLS & INTERESTS

Data Tools: Excel, Python (Pandas, NumPy, Scikit-Learn, TensorFlow), C, R, SQL, Scikit-learn, TensorFlow, NLP, Recommender Systems, Time-Series Forecasting, Streamlit, HTML, CSS, JavaScript, React, PHP, Laravel, Git, Figma, Adobe Photoshop, Google Workspace.

Language: Bahasa Indonesia (Native), English (Fluent).

Certificates: NVIDIA Fundamentals of Deep Learning 2025, IELTS (Band 8.0), Data Visualization Competition Finalist Data Science Club 2023, Company Seminar KPMG 2025, Data Science Short Course by Professor Jennifer Widom from Stanford University 2024

Interests: Golf, Tennis, Finance, Quantitative Finance, Machine Learning, Gym, Music, Jazz