

ARYANTO, M.Si

Sr. Data Scientist



Permanent Address : Jayapura, Papua, in Indonesia

PROFESSIONAL PROFILE

Experienced Data Scientist with 9 years of expertise building and deploying AI-driven solutions across industries. Skilled in NLP, computer vision, geospatial analytics, and predictive modeling, turning complex data into actionable insights. I specialize in recommender systems, forecasting, and large-scale processing using Python, SQL, Julia, and Cython on GCP. Proficient in ML pipelines, ETL, and microservices, I help organizations enhance automation, optimize decisions, and drive measurable value through data intelligence.

Contacts

Portfolio
masterofray.github.io



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Educations

Mathematics

Focus on applied mathematics in industries and did some researches in numerical programming and statistics.

Master of Actuarial Science

Research on quantitative risk management and predictive methods applied on IBNR calculation for ruin probabilities and ultimate losses as insurance's liability.

Expertise / Skill

+9 Years of Python Programming

+7 Years in Machine Learning

+9 Years in Structure Database
SQL and its engine (Postgres, etc)

+6 Years in Forecasting
SARIMA, LSTM, TCN, DeepAR, DeepState

+4 Years in Dashboarding
Looker, Tableau, Grafana

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Looker, Tableau, Grafana

+3 Years specialist
in Marketing Science

+2 Years specialist
in Computer Vision

Professional Experiences

Data Science Manager
March 2022 - Dec 2025

MERKLE Indonesia
part of Dentsu

Remote
3 years 10 months

I work with leading clients across automotive, telco, banking, insurance, and e-commerce industries to deliver data-driven solutions that power personalization and growth.

- * At Merkle, I owned the project and deploy end-to-end machine learning projects from data modeling and feature engineering to deployment and monitoring.

- * My experience includes building propensity model, behavioral scoring, churn prevention, and recommender systems (by NLP techniques or *Learning to Rank*) using Python, SQL, and GCP tools like BigQuery, DataProc, ComputeEngine, etc.

- * I've also developed LLM-based chatbots in DialogFlow and Vertex AI, optimized customer data platforms, and guided teams of data scientists and analysts to ensure high-quality execution.

- * I focus on transforming raw data into actionable insights to help client make a business decision and show them in Looker Studio.

Sr. Data Scientist
Nov 2019 - March 2022

Asia Pulp and Paper
Sinarmas

Jakarta
2 years 5 months

I've developed and deployed AI and machine learning solutions across forestry, supply chain, and marketing, focusing on automation, predictive modeling, and optimization.

- * I built end-to-end data systems on private cloud environments using containerized code to enhance scalability and reliability.

- * Built end-to-end data systems on private cloud environments using containerized code, improving scalability and system reliability.

- * Created predictive models for sales forecasting and recommendation systems, enhancing business decision-making and planning accuracy.

- * Applied computer vision techniques in remote sensing for tree counting, flood detection, and weed classification using deep learning.

- * Designed interactive dashboards in QlikView and Tableau to communicate model results and business insights effectively.

- * Optimized data pipelines and workflows using Python, SQL, Spark, and Jenkins, performing feature engineering and model validation for production deployment.

Data Manager
July 2019 - Nov 2019

GSMA Remote
5 months

Conducted in-depth statistical analysis for the GSMA-AEConsults project in Sumba, NTT, evaluating e-money adoption for electricity payments. Processed and cleaned ODK survey data, performed descriptive and inferential statistics, feature engineering, and predictive modeling to extract insights on community behavior, income patterns, and payment effectiveness.

- * Design and build interactive logistics dashboards for real-time monitoring and insights and provide technical support for mapping and spatial data analysis.

- * Set up and maintain CI/CD pipelines to automate data transfer, processing, and deployment workflows.

- * Leverage Azure Cloud Services for scalable and efficient data processing, storage, and monitoring and develop, maintain, and optimize SQL databases to support data storage and retrieval operations.

- * Configure and deploy ODK xlsforms and manage ODK Aggregate for effective data collection and survey deployment.

AE-Consult Jakarta
2 years

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Language Skills

Indonesian	Native
English	Professional

Certification

Pass 4 from 10 Exam
Certification of Indonesia
Actuary Organization

Got Up to 220 Course
Certification from AWS,
Google Cloud Skillboost,
Skillsoft, and
Linkedin Learning
(Check on my Linkedin)

Industrial Project

With nearly a decade of hands-on experience, I've delivered production-grade AI solutions across automotive, telco, banking, insurance, e-commerce, and forestry sectors. My work spans large-scale recommendation engines, LLM-powered chatbots, geospatial computer vision, and customer data platforms (CDP) bridging advanced machine learning with real-world deployment to solve complex, high-impact business problems.

Professional Experiences (Continued)

Data Analyst Dec 2016 - June 2017	Experience as Operation Data Analyst, work with sampling approaches, root causal modeling, time series analysis, also mine and analyze data from company databases and CRM to drive optimization and improvement of product development using analytics tool e.g. R or Python, marketing techniques and business strategies. Handling multiple reports such as KPI Report, Daily, Weekly, Monthly and Annual Report.
Bolttech (Amtrust formerly) Jakarta 7 months	
Quantitative Risk Analyst Jul 2016 - Dec 2016	Role as Quantitative risk analyst for Chevron Pacific Indonesia's project with dealing on : 1. Risk management analysts develop quantitative models to volume Soil Remediation. 2. Find out the Correction factor for soil excavation and additional volume from clean soil that carried over with HIS during excavation. 3. Prediction Models of Actual Delineation TPH > 1% for the effective volume soil remediation. 4. Validate the prediction model and test new and old quantitative models which working in various capacities, and determine their accuracy. 5. Simulated and implemented the models via computer algorithms.
PT. LAPI ITB Jakarta 6 months	

- Customer Data Platform & Gold Layer Analytics** (Automotive, Telco, Banking, Insurance)
Designed and optimized enterprise-scale Customer Data Platforms on GCP BigQuery, integrating GA4, Firebase, Mixpanel, Appsflyer, and internal transactional data into analytics-ready gold layers.
- Behavioral Scoring & Lead Generation Models** (Multi-Industry Clients)
Developed predictive behavioral scoring models to generate high-quality leads and prioritize customers for acquisition, retention, and upsell strategies.
- Next Best Offer (NBO) & Cross-Selling Systems** (Banking, Insurance, Telco)
Built advanced machine learning pipelines for Next Best Offer, cross-sell, and upsell use cases, leveraging customer journey data and behavioral signals.
- Deep Learning Session Recommendation Systems** (E-commerce, Telco, Automotive)
Implemented deep learning-based recommendation systems, including session-based recommender models, to personalize content, products, and offers at scale.
- Learning-to-Rank Product Recommendation** (Clients Without Explicit Ratings)
Designed Learning-to-Rank models to generate artificial product relevance scores where explicit ratings were unavailable, enabling ranking-based recommendation engines.
- Large-Scale Event Analytics from GA4 & Firebase** (High-Traffic Digital Products)
Processed billions of event-level records from GA4 and Firebase in BigQuery to support funnel analysis, attribution modeling, feature engineering, and ML training datasets.
- Multi-Touch Attribution (MTA) Modeling** (Marketing Analytics)
Developed attribution models to analyze customer journeys across channels, enabling data-driven optimization and ROI evaluation through Looker dashboards.
- AI-Powered Personalized Chatbots** (Enterprise Clients)
Built intelligent chatbot systems using Dialogflow and Gemini LLM, enhanced with Retrieval-Augmented Generation (RAG) from internal document knowledge bases.

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