

ALIF WAHYU SYAHNANDA

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SUMMARY

Dedicated and data-driven Energy Engineering background with strong passion data science & machine learning, experienced in professional for about 2 years at 20,000+ employee manufacturing industry. Possess proven leadership and organizational skills, with a track record of effectively managing and guiding teams. Passion adept at conceptual thinking and problem solving is driven by a commitment to data-driven sustainability. Proven establish and led major digital transformation reporting project by maintain and analyzed 5,000+ data/month, reduced workplace accidents by 25% annually. Leveraging my expertise in data science and analytics through various analysis and predictive modeling projects. One of projects successfully streamlined 69.8% expenses costs by implementing Machine Learning Model to predict customer churn. Blending of engineering knowledge, analytical skills, and a data-driven mindset allows me to approach challenges precise and effectively. Thrive on continual growth with strong work ethic and commitment to innovative projects that drive efficiency and impact through advanced data analysis and machine learning.

WORK EXPERIENCE

PT. MUIS Dikakarya – Jakarta, Indonesia

Jan 2024 – Jun 2024

Project Assistant

- Successfully supervised commissioning dashboard and analytic power plant room for 100% completion infrastructure
- Supervise and conduct analysis on project requirements by the contract and supporting the coordination and management of projects
- Formulated report and analysis on project and procurement. Managed stakeholders regarding project milestones.

Pou Chen Group Indonesia - Manufacture

Mar 2022 – Dec 2023

Sustainability Development Engineer & HSE Officer

- Successfully establish and led major digital transformation reporting project by maintain and analyzed 5,000+ data/month to reduced workplace accidents by 25% annually
- Led and enhanced an 80% Retrofit Machine Project, significantly improving machine safety performance and reducing risk severity and frequency from High to Low
- Developed and analyzed comprehensive Machine Safety Programs, including machine guarding, safe machine operation, pressure vessels, and laser safety, through periodic inspections, procedure reviews, and HIRARC assessments
- Conducted Analysis Machine Risk Assessments in alignment with ISO12100, achieved 100% safe machine target. Also managed Fire Safety Management (FSM) and Emergency Response Plan (ERP), including fire safety inspections, chemical inventory reviews & emergency drill
- Monitored and Conduct Analysis Safety, Health, Environment & Energy (HSEE) performance in machinery processes using Excel and ENABLON (Risk Management System). Supported accident investigations, developed risk management practices, and resolved HSEE issues through continuous improvement and maintain Behavior-Based Safety (BBS) initiatives

PENS Sky Venture – Tech Startup Incubator

Aug 2020 – Oct 2020

Product and Business Management (Internship) | [Credential](#)

- Conducted market research and analysis using survey data focused in Surabaya, Gresik, and Sidoarjo to gather feedback from PLN customers for solution conceptualization using Design Thinking and Conducted elevator pitch to stakeholders
- Created wireframe for product landing page and mobile app UI/UX using Figma and pitch deck to pull in investment

PROJECT EXPERIENCE

E-Commerce Customer Churn Analysis & Predictive Modeling Classification Approach | [Deck](#) | [Source Code](#)

- Successfully streamlined 69.8% retention and acquisition costs by implementing Machine Learning to predict churn
- Analyze the effect of customer characteristics and habits data on churn

Used Car Prices in Saudi Arabia Analysis & Predictive Modeling Regression Approach | [Deck](#) | [Source Code](#)

- Successfully create XG Boost model for predicting used car prices in Saudi Arabia with R^2 0.8, MAE 15767, RMSE 31338, and MAPE 1.2%.
- ML (Machine Learning) can be used by used car websites to help visitors estimate the selling/buying price of cars

Supermarket Customer Data Analysis Using RFM (Recency, Frequency, Monetary) Method | [Deck](#) | [Source Code](#)

- Enhancing Promotion: Analysis of Supermarket Customers Behavior using RFM (Recency, Frequency & Monetary) Method by segmenting 80% of customer that 'Need Attention' and 'Promising Customers'
- Focusing target 'Need Attention' customers with [win-back] campaigns and Key Personalization Promotion

Clustering of countries in crisis for international using KMEANS Unsupervised Learning | [Deck](#) | [Source Code](#)

- Successfully gave the best cluster for \$10 million aid to the 5 most crisis countries based on the features and cluster
- Using KMEANS Clustering to get strategic and effective decision-making

SYNERE Start-up (Digital Energy Audit Platform & Electrical Planning Solution) | [Deck](#) | [Research](#) | [Prototype](#)

- Initiated an application and website product to solve the high electricity consumption expenditure of industry and housing with an offer to reduce costs by 65.4%. Conducted market research of PLN customers with the result that 250.000+ customers experienced a 200% increase in electricity costs
- Create business strategies using BMC (Business Model Canvas) to obtain product feasibility in business and operational implementation structures

EDUCATION

Purwadhika Digital Technology School

Feb 2024 – Present

Data Science & Machine Learning Bootcamp

Committed 13 weeks on intense program that full of practical assignments and projects to refine data science & machine learning skills which taught by leading industry practitioners from South East Asia. Several Projects and curriculum that I did:

- SQL (Data Query, Data Manipulation, Data Definition, Data Analysis), Python Programming Language (Data Analysis, Machine Learning (Modeling Supervised Learning & Unsupervised Learning) & Data Visualization), Tableau (Data Visualization, Data Story Telling & Dashboard).
- Projects from Business Problem: Customer Analysis (RFM & Cohort Method), Business Analysis, Product Analysis, Scikit-learn implementation, Market Research Analysis & Predictive Modeling (Regression & Classification Approach)

Politeknik Elektronika Negeri Surabaya

Jul 2017 – Jul 2021

Bachelor of Applied Energy Engineering Degree (GPA: 3.32/4.0) | [Credential](#) | [Thesis](#)

Undergraduate Thesis: “**Design of Steam Power Plant Condenser Machine Maintenance Using RCM (Reliability Centered Maintenance) Methods with RCPS Implementation**”

WORKSHOP & CERTIFICATION

- **Data Science & Machine Learning** – Purwadhika Digital Technology School
August 2024 - No Expiry Date | [Link](#)
- **Python Data Science** – Sanbercode
January 2024 - No Expiry Date | [Link](#)
- **Google Analytics for Beginners** – Google Academy
November 2023 - November 2026 | [Link](#)
- **Product Management** – Apiary Academy
March 2024 - No Expiry Date | [Link](#)
- **Intro to Data Analytics** – RevoU
April 2023 - No Expiry Date | [Link](#)
- **Project Management** – Teknokrat Muda Indonesia
February 2022 - No Expiry Date | [Link](#)

ACTIVITIES & ORGANIZATION EXPERIENCE

Energy Student Association

Head of Entrepreneurship Department (2019 – 2020) | [Credential](#)

- Responsible for all work programs, agendas, and members for the smooth running of all work programs
- Planning profit-increase schemes for organization and managing org. fiscal power

Staff of Entrepreneurship Department (2018 – 2019)

- Responsible for implementing entrepreneurial work programs that focus on product sales, charity, & entrepreneurship event
- Conducted sales recapitulation, monitor product, & operational sales

Energy in Challenge 2019 (Java - Bali)

Chief Executive of Event and Organizer (2018 – 2019) | [Credential](#)

- Successfully organized the program study biggest event that participated by 500+ college and school students across Java-Bali
- Led 70 people from all division to organize and operate the events
- Organized and conducted cross-functional meetings to make alignment for the event

ACHIEVEMENTS

International Electronics Symposium (IES) 2021 (September 29th – 30th 2021) | [Publication](#)

International Level

- Thesis research qualified for international publication at IEEE Xplore
- Presenting research on conference that held at the Sheraton Hotel Surabaya in English setting.

SKILLS

Technical Skills: Python, MySQL Database & Query, R, Tableau, Microsoft Office, Google Suites, Looker Studio, Google Analytics, Statistical Data Analysis, Data Visualization, Visio, Miro, Data Analytics, Scikit-learn, Canva, Machine Learning, Predictive Modeling, Data Cleansing, Data Wrangling, Product Research, Jira, Git & Github, Data Visual Studio Code.

Soft Skills: Analytical Thinking, Problem Solving, Collaborative, Project Management, Product Management, Data Story Telling, Public Speaking, People Management, Adaptability, Critical Thinking, Agile, Conflict Management, Leadership, GDPR Mindset.

Languages: Bahasa Indonesia (Native), English (Advanced), Arabic (Elementary), ETOEFL (Score: 573)