



# Henry Samuel Manurung

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🌐 Henry Samuel Manurung

🌐 nrysam

## SUMMARY

Dynamic Data Scientist with a diverse background in mechanical engineering, machine learning, and business analytics. Expert in deploying Python and TensorFlow. Demonstrated leadership in guiding teams toward achieving exceptional improvements in operational efficiency through innovative data-driven strategies. Highly skilled in designing and implementing machine learning models that enhance decision-making processes and optimize business outcomes. Eager to leverage a deep technical toolkit and a proven track record of success to contribute in pioneering data related projects.

## WORK EXPERIENCE

### DA Technology

#### *Computer Vision (비전) Team Leader*

### Karawang

Oct 2023 – Present

- Lead the Vision team, focusing on analyzing defects in battery cell production using Computer Vision and devising strategies to enhance product quality significantly.
- Innovatively automate the analysis of multiple data files by developing a Python script, streamlining the process of filtering and copying files, which significantly boosted operational efficiency (from 25 min to less than a minute).
- Implementing image processing and object detection techniques to identify patterns, shapes, and features in images for cell battery.
- Training machine learning models for tasks such as image classification, recognition, and automated decision-making using TensorFlow.
- Develop a Visual Basic macro for Excel, automating the data filtering process and facilitating precise CPK machinery calculations, enhancing data-driven decision-making.
- Direct ETL processes to transform raw data from factory machinery into actionable insights, driving continuous process improvements.

### DA Technology

#### *Design Engineer*

### Karawang

Aug 2023 – Oct 2023

- Engineered over 25+ design modifications using Autodesk Inventor, leading to a marked improvement in product performance and quality standards.
- Develop Warehouse Inventory Report for Warehouse Team.
- Oversee production processes to ensure compliance with quality and safety standards.

### Shopee

#### *Business Development Analyst*

### Jakarta

Feb 2022 – Aug 2023

- Developed personalized tracker to monitor shops managed which significantly boosted operational efficiency.
- Conducted deep dive analyses of advertising campaigns, resulting in optimized strategies for maximum ROI.
- Championed the use of analytical tools for data collection and analysis, delivering actionable insights to enhance ad campaign effectiveness and achieve business goals.

- Monitored market trends and competitive landscape to identify opportunities and recommend strategies to enhance advertising efforts.
- Implemented A/B testing methodologies to optimize ad copy, visuals, and landing pages, resulting in increased click-through rates and conversions.
- Delivered outstanding results, generating over \$600,000 USD in company revenue, surpassing the target by 25%
- Acted as a live speaker in webinars, effectively communicating product features to over 2000+ sellers and enhancing user experience.
- Collaborated closely with Product Managers to resolve known issues, contributing to a seamless user experiences, using JIRA.

#### **HPI-Agro (PT Muria Sumba Manis)**

*Boiler & Power Plant Staff*

**Sumba**

Oct 2020 – Jan 2022

- Supervise teams for daily operations of the Power Plant, ensuring efficiency and sustainability.
- Designed the Waste Water Treatment Plant (WWTP) reservoirs using AutoCAD, improving environmental sustainability and operational efficiency.

### **EDUCATION**

#### **Bandung Institute of Technology (ITB)**

*Bachelor of Science in Mechanical Engineering*

**Bandung**

Aug 2015 – Jan 2020

**Final Project :** Bandung Municipal Solid Waste Combustion Simulation on Small Incinerator using Flic and Fluent

**Mechanical Project :** Led a collaborative team of three members on a significant mechanical project, designing and assembling the innovative '2-in-1 Vacuum Dryer.'

**Project Showcase :** Showcased the '2-in-1 Vacuum Dryer' at the prestigious Mechanical Exhibition in 2019, demonstrating innovative engineering solutions to a wide audience.

### **PROJECT PORTFOLIO ([click here](#))**

#### **Forming UCL 22/23 XI of the Tournament Analysis ([click here](#))**

- **Summary:** The project focused on analyzing the dataset of football players played in UCL Season 2022/2023. It leverages advanced statistical methods and data visualization techniques to evaluate and select the top performers for each position.
- **Result :** Delivers interactive visualizations such as heatmaps, bar plots, radar charts, and violin plots, aiding in the insightful comparison and selection of top performers. The final output includes a dynamically generated "Best XI" team.

#### **CNN-based Car Part Identifier: A Machine Learning Approach ([click here](#))**

- **Description:** The project develops a CNN-based car part identifier to accurately classify images into 50 different categories of car components. The project is segmented into multiple scripts handling data preprocessing, model training, performance evaluation, and result visualization.
- **Result :** The final model achieves a robust classification accuracy, demonstrated through detailed accuracy and loss graphs over training epochs, as well as a confusion matrix illustrating class-wise performance.

#### **LSTM-based Yelp Review Sentiment Analysis ([click here](#))**

- **Description:** This project is centered around analyzing Yelp reviews using a deep learning approach to categorize sentiments as positive or negative. The process is methodically

divided into several scripts covering data preparation, model training, sentiment prediction, and evaluation.

- **Result** : Achieves detailed sentiment analysis with the capability to identify nuanced expressions in reviews.

## **CERTIFICATION**

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- DeepLearning.AI TensorFlow Developer
- Python – Data Science
- Business Intelligence
- Introduction to Product Management

## **SKILLS**

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**Computer Skills:** Python, TensorFlow, Tableau, MySQL, JIRA, Visual Basic for Applications (VBA).

**Technical Skills:** Analytical Thinking, Problem Solving, Deep Neural Network, Convolutional Neural Network, Recurrent Neural Network, Natural Language Processing, Machine Learning, Leadership, Data Wrangling, Exploratory Data Analysis, Market Analysis, Collaboration, Innovation, Data-Driven Decision Making, Project Management.