# **ANA VASQUEZ**

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With over 5 years of experience as a data scientist, analyst, and software engineer, I specialize in end-to-end Machine Learning solutions, from conceptualizing DS use cases to producing business value for my clients. I am skilled in Python, SQL, and NLP tools (LLMs, SpaCy, NLTK, Transformers), and I use these tools to create tailor-fit data-driven solutions for clients.

# **WORK EXPERIENCE**

WORK EXPERIENCE 2024, Aug-Sept

## **DATA SCIENCE CONSULTANT** for Financial Services (Confidential)

- Applied NLP algorithms such as topic modeling to analyze multi-language customer feedback transcripts, improving insights related to payments and financial services.
- Utilized text classification and clustering techniques on user profiles to improve retention strategies and product ideation.

#### **WORK EXPERIENCE**

**DATA SCIENCE CONSULTANT** for Construction and Logistics (Confidential) 2024, Apr-Sept

- Employed advanced Machine Learning algorithms such as Random Forest to predict optimal departure time, thereby lessening delivery delays, and increasing revenue by Php 112 million annually.
- Coordinated with the client and cross-functional teams to design and develop ML models and automate data pipelines that streamlined the data transformation process from an average of 3 days to just minutes.
- Developed a dynamic Power BI dashboard, which insights were able to reduce trip time by an average of 27 hours per day, leading to fuel cost savings of Php 1.8 million annually.

#### **WORK EXPERIENCE**

**DATA ANALYST** for Data Studio Whiz (Data Services and Consultancy) 2022 – 2023

- Led the development of marketing analytics tools like the Google Analytics dashboard templates, reducing manual work by 240 hours per year resulting in savings of Php 44,880 annually.
- Collaborated with clients to create end-to-end data projects with SQL and Looker Studio to analyze their data, bringing data-driven insights into the industries of marketing, HR, real estate, health, and finance.

# **WORK EXPERIENCE**

#### **DATA ANALYST** for TFMT (E-learning)

2021 - 2022

- Improved course delivery by analyzing student feedback, increasing course attendance from 200 to 800 students per session.
- Coordinated with marketing, operations, and product teams to develop programs that improved user retention and increased customer acquisition by 20%, through analysis of 5,000+ member feedback.

## **WORK EXPERIENCE**

**SOFTWARE ENGINEER** for Magis Solutions (Web and App Development) 2017 – 2020

- Managed a team of 3 developers to develop scalable web applications in the industries of e-commerce, finance, human resources, and tech.
- Utilized SQL and PHP to develop programs while maintaining code quality through regular code reviews.

### **EDUCATION**

Asian Institute of Management 2023 – 2024

Master of Science in Data Science | Dean's List (2024)

De La Salle University 2010 – 2013

Bachelor of Psychology

**SKILLS**: Python, SQL, Sentiment Analysis, NLP, SpaCy, BERT, Hugging Face, Text Classification, TensorFlow, PyTorch, Product Optimization, Search Algorithms, Web Scraping, API Integration, Data Wrangling, Data Mining

## **RELEVANT PROJECTS**

## Multilingual NLP for Education Feedback Analysis

Education | NLP Analysis

Applied SpaCy, Hugging Face Transformers, and BERT models to analyze 18,000 student feedback entries, automating anonymization, language detection, and sentiment analysis.

## Do Llamas Work in English?

Journal Review | LLM

Large Language Models (LLMs) have been proven to perform well in different languages, despite being trained on a largely English-based dataset. In reviewing the journal, Do Llamas Work in English, we uncovered how languages model "thinks in English" but "answers in the wanted language" using Logit Lens.

#### Student Grades and Student Feedback Correlation

Education | NLP Analysis

Analyzed 18,000 student feedback using **SpaCy NER**, **Hugging Face Transformers**, and **BERT** for **anonymization** and **sentiment analysis** that can be applied to analyzing datasets like customer reviews.

## **Sentiment Analysis for Customer Shopping Reviews**

E-commerce | Sentiment Analysis

Performed **sentiment analysis** on customer reviews with TextBlob and a custom Naïve Bayes classifier, improving classification accuracy by 10%.

# Identifying Top Skills in the Philippine Data Industry

Human Resources | Principal Components

Scraped 10,000+ job postings from JobStreet and used SVD to reveal in-demand data skills. Recommended key skills in the local data industry, supporting career development for 60+ students.

## **Mapping Profitable Locations to Build Solar Farms**

Sustainability | Geospatial Analysis

Identified nationwide locations for solar farms based on land criteria and metrics, and determined the top 3 locations with potential annual earnings of at least **Php 138 million** per site.

# **Creating Optimal Jewelry Bundles**

E-commerce | Frequent Itemset

Applied Frequent Itemset Mining to create jewelry bundles, generating Php 250,000 in revenue for our client.