phlpsnm

github.com/PhilipSanM | kaggle.com/PhilipSanM | philipsanm.github.io

EDUCATION

Superior School of Computer Science | ESCOM IPN — Graduating in July 2025
*Bachelor of Science in **Artificial Intelligence Engineering** B.S.* — *GPA 89/100*

- Relevant courses include Advanced Neural Networks, Natural Language Processing and Machine Learning.

WORK EXPERIENCE

Computer Vision Research Assistant — Remote – Team at Mexico City
Computational Cognitive Sciences Lab, CIDETEC IPN — September – Present

- Collaborated with a computer vision researcher to develop **semantic segmentation U-net models** from nighttime road video data from Mexico.

PWBM Technology Intern — Mexico City, Mexico
Production Management SRE, Citigroup Mexico — June 2024 - August 2024

- **Designed a Machine Learning System** to automate the revision and approval/rejection process for changes in production applications, through making Fine-tuning to OS Large Language Models (LLMs);
- **Studied theory and practices** of using **AI in enterprise** settings and **MLOps** (Machine Learning Operations).

MAJOR PROJECTS

VIRTUAL PLACES EDITING | *Python, Docker, Flet, Yolov8, Stable diffusion, NeRF* — 2024 - 2025
A desktop application where users can create their own 3D models from personal bedrooms for editing.

- Collaboratively developing a desktop application compatible with Unreal Engine to edit 3D scenes generated from real-life environments from 2D images, constructed in a 3D scene through **NeRF and Gaussian Splatting methods;**
- **Segmented and inpainted** objects on **2D images** to separate and reconstruct individual objects and backgrounds within 3D scenes;
- Designed the ML **application through microservices.**

Capibara DOF | *Python, Regex, Langserve, Langchain, Pinecone, nltk* — 2024
A web application for asking questions in natural language about the Mexican DOF.

- Collaboratively developed a **Retrieval Augmented Generation (RAG)** for a **Large Language Model (LLM)** to generate resumes and respond to natural language queries about the Mexican Official Diary of the Federation (DOF);
- **Used Langserve and Langchain** for model retrieval, and Pinecone for vector storage.

To check out more of my projects, please feel free to visit my own portfolio at PhilipSanM.github.io

EXTRACURRICULAR

ESCOM Competitive Programming Club — 2022 - Present

- ICPC 2023/2024 Grand Price of Mexico Ranked 256th out with **honorable mention**.
- Helping over 30 students with foundational knowledge to excel in competitive programming contests, covering topics such as recursion, backtracking, and dynamic programming.

SKILLS

LANGUAGES
Japanese(N5), English (Proficient), Spanish (Native).

PROGRAMMING LANGUAGES
Proficient: Python3
Intermediate: C++, Julia, SQL

TECHNOLOGIES
Intermediate: Git, Github, Azure, Docker.
Beginner: MLFlow, Kubernetes.

LIBRARIES
Intermediate: Pandas, Numpy, Matplotlib, Seaborn, Tensorflow, Scikit-lean.
Beginner: Transformers, TFX, FastAPI.

AWARDS
2nd Place Team at Chelathon, hackathon by Grupo Modelo (2023); Reduced CO2 emissions by the reuse of water and detected anomalies in pipes with DBSCAN ML model.

ONLINE COURSES
Cognizant: Cognizant GenAI Externship Nanodegree (2024)
Fine-Tuning to LLMs and RAG implementations.
Google Cloud: Computing Foundations Academy Certificate (2023).
Leetcode: Top 38.9% and Introduction to Pandas Badge (2023).