

Joseph P. Pulayan

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EDUCATION

University of Santo Tomas

Sampaloc, Manila

Bachelor of Science in Computer Science

June 2024

- Core Computer Science (Machine Learning, Natural Language Processing, Empathic Computing)

EXPERIENCE

Calibr8 Systems Inc.

Ortigas, Pasig

Developer Intern

February 2024 - May 2024

- Contributed to the System Monitoring Tool project by developing functions for token generation and data processing, enhancing the tool's capabilities and efficiency.
- **Token Generation for API Access**
 - Developed a function to generate access tokens using an API endpoint, ensuring secure communication between the monitoring agent and external systems.
 - Implemented logic to refresh the token if it became invalid during requests, improving reliability and reducing downtime.
- **Data Fetching and Integration**
 - Utilized Postman to test and refine API requests, ensuring accurate and efficient data fetching from public APIs
 - Analyzed and processed the fetched data to support the tool's monitoring functions, enhancing data-driven insights.

Department of Public Works and Highways - NCR, 2nd Street Office

Port Area, Manila

Work Immersion

June 2019 - July 2019

- **Basic AutoCAD Lessons**
 - Completed 150 hours of immersive training focused on learning and applying basic AutoCAD skills.
 - Assisted in creating and modifying technical drawings and blueprints under the supervision of senior engineers.
 - Gained practical experience in drafting and design, contributing to the preparation of project plans and layouts.

PROJECTS

A Comparative Study Between MediaPipe with Bidirectional Long Short-Term Memory (BiLSTM) and OpenPose with Long Short-Term Memory (LSTM) for Filipino Sign Language Recognition

Project Overview:

- Developed a Python-based application capable of recognizing 50 Filipino Sign Language gestures and translating them into text, addressing the needs of the deaf community.
- Improved the system's accuracy and reduced both training and prediction times, enhancing overall efficiency.

Key Contributions:

- Contributed to programming the Mediapipe with Bi-LSTM module for Filipino Sign Language recognition.
- Conducted a thorough comparative analysis between Mediapipe with Bi-LSTM and OpenPose with LSTM, highlighting their performance differences.
- Assisted in creating and curating datasets for training and testing the models.

Achievements:

- Awarded Third Place for Best Thesis, recognizing the project's innovation and significant impact on the field of sign language recognition.

QNB Water Trading: Point-of-Sale System

Role and Responsibilities:

- Supervised and ensured the quality of the Point-of-Sale (POS) system, overseeing its implementation and operation.
- Conducted regular testing and evaluations of the POS system to identify and resolve any issues or inconsistencies.
- Collaborated with the development team to improve system functionality and user experience.
- Monitored and maintained system performance, ensuring it met the company's standards and requirements.
- Developed and executed quality assurance plans and protocols, ensuring all processes were compliant with industry standards.
- Provided training and support to staff on the use of the POS system, enhancing operational efficiency.

Blaba.Sneaks: E-commerce Web App

Technologies: HTML, CSS, Java, MySQL

- Developed a functional and responsive e-commerce website for Blaba.Sneaks.
- Created multiple pages using HTML and CSS for structure and design.
- Implemented Java Servlets for backend functionalities, including stock retrieval and user authentication.
- Managed sneaker and user data using a MySQL database, ensuring secure and efficient data handling.

SKILLS & INTEREST

Technical Skills

Programming Languages: Java, Python, JavaScript, TypeScript, React, HTML, CSS

Frameworks/Libraries: TensorFlow, NumPy

Data Management System: SQL

Tools/IDEs: Microsoft Office, NetBeans, Visual Studio Code, Jupyter Notebook, MySQL Workbench,

Soft Skills: Problem Solving, Analytical Thinking, Teamwork and Collaboration, Time Management

Languages: English (Fluent), Filipino (Native)