

Lucius Caldenhoven Loayza

Lucius.caldenhoven@ucsp.edu.pe | +51 929905737
github.com/ElpibeeLu | linkedin.com/in/Lucius

Skills

Languages: C/C++ (3 years), Python(1.5 years), SQL(1 year).

Technologies & Tools: GitHub, TensorFlow, Keras, PyTorch, OpenGL, OpenCV, Jupyter Notebook, Dask

Education

Universidad Católica San Pablo
Computer Science

March 2021 - Present B.E. in
CGPA:8.51/10

Relevant Coursework:Machine Learning, Data Mining, Advance Data Structures and Algorithms, Information Retrieval, Image Processing

Work Experience

Mentor of Applied Mathematics for Computing Class

August 2022 – Present

Universidad Católica San Pablo(Arequipa-Perú)

- Assisted students in improving their problem-solving skills and coding abilities.
- Provided guidance on algorithm optimization and data structure implementation.
- Developed supplementary materials and exercises to reinforce classroom learning. **Languages and tools used:** C++ and Python

Academic Project

- **Violence Detection in Videos Using Transformer Networks (2024):** Developed a system to detect violence in videos using transformer networks. Preprocessed video data to extract frames and used a pre-trained transformer model for feature extraction. Implemented the system using C++, CUDA for parallel processing, Python for data handling and model training, and OpenGL for visualizing results.
- **OCR for Numbers Using Multilayer Perceptron (2024):** Created an Optical Character Recognition (OCR) system for recognizing handwritten numbers using a Multilayer Perceptron (MLP) neural network. Utilized the MNIST dataset for training and validation. Implemented the system in C++ and used OpenGL for rendering and visualization of OCR results. Employed data preprocessing techniques to enhance model accuracy and used regularization methods to prevent overfitting.

Technical Interests

- **Exploring Programming Languages:** Experimenting with different programming languages such as Python, C++, and JavaScript for personal projects and learning.
- **Learning New Technologies:** Following online tutorials and courses to understand new tools and technologies like Docker or Git.
- **Working on Personal Projects.**
- **Experimenting with Open-Source Software:** Exploring and contributing to open-source software projects to gain practical experience.

Programming contests

- **Programming Contest "Copa de Comunidades de Programación 2024"**
Participated in the "Llenamos la copa," a remote contest for university students from El Salvador, Guatemala,Honduras, Mexico, and Peru organized by omegaUp and Google. Placed 7th out of over 400 participants. Year: 2024.
- **Programming Contest "Codig Cup"**
Participated in the "Codig Cup" programming contest, representing my team "The brawls". Year: 2023.