Gabriela VEGA

🔗 https://vegabs.github.io/
@ gabriela@latinxinai.org

A fast learner and curious Electrical Engineering undergraduate with software and hardware skills to ideate and prototype novel devices. I'm interested in research at the intersection of technology + design. Eager to explore and contribute to a variety of research areas related with HCI, AI, VR/AR and IoT. I desire to promote HCI research in Latin America.

EDUCATION

2017 now	**Peruvian University of Applied Sciences, UPC, Peru** › B.Eng. Electrical Engineering › Upper Third. GPA : 3.98/4.00
2021 now	**Bolivarian Pontifical University, UPB, Colombia** › Exchange Student in Engineering in Digital Entertainment Design › Courses : AR/VR, Computer Vision, Interactive Physical Systems

PUBLICATIONS

1. SUN, Shuyi, **VEGA, GABRIELA**, Denis MARCELLIN-LITTLE et Katia VEGA (2021). "WOOFlex : A Wearable Device to Aid Canine Flexibility Exercises". In : *Proceedings of the Eighth International Conference on Animal-Computer Interaction (ACI'21)* [**Accepted**].

RESEARCH EXPERIENCE

Jan. 2020 Dec. 2020	**Undergraduate Visitor Researcher, UC DAVIS, Remote** › Interactive Organisms Lab. Advised by Prof. Katia Canepa Vega. › Prototyped a canine joint angle measurement wearable using 9DOF Inertial Measurement Units (IMU). › Developed a web application that allow wireless communication between a wearable device using the p5ble.js library and a BLE module. › Collaborated on a project to design a multi modal feedback wearable that allow users to perform canine exercises correctly. HTML/CSS · JavaScript · C · Arduino · IMU · BLE

PROFESSIONAL EXPERIENCE

Jan. 2020 Dec. 2020	**Software Intern, BUSINESS ANALYTICS SAC., Peru** › UI design and front-end web development of a web app for geocoding addresses using interactive maps, using Adobe XD and Angular 9. › Web scraping and data cleaning of Google Cloud Platform billing data using Python, Selenium and SQL. › Implementation of AI models for text recognition in PDFs using Microsoft AI Builder and Microsoft Power Apps. Python · Selenium · C# · Angular · HTML · CSS

SKILLS

Programming	Python, C/C++, MATLAB, C#, HTML/CSS, JavaScript, SQL, PHP
Hardware prototyping	Arduino, Raspberry PI, ESP32
Tools and Frameworks	Unity, Vuforia, ReactJS, Flask
Design	Figma, Adobe XD, Adobe Lightroom

Selected Projets

FreeAir
2021 - NOW

○ github.com/vegabs/freeair

A web application that allow students and teachers obtain info related with their attendance to lectures and CO2 levels, extracted from IoT devices, in each classroom attended. In develop to be use at Peruvian University of Applied Sciences.

PHP · Javascript · HTML · CSS (Bootstrap)

Crossy Play
2021

○ github.com/vegabs/crossy-play

The goal of Crossy Play is allow users to play the game "Crossy Road" using body poses instead of the keyboard arrows, this with the mission of make the game more active.

OpenCV · Python

A prototype of Hey Jimmy!
2021

☑ Demo Video

A virtual assistant with voice recognition to improve the patient experience in hospital rooms. The supported commands are : nurse, doctor, light, temperature. Implemented using a telegram bot to send automatic messages, a temperature sensor and the Google Voice Recognition API.

Python · Raspberry PI · Voice Recognition

Spanish Vowels Detector
2021

○ github.com/vegabs/vowels-detection

An algorithm to detect all the spanish vowels using a Six-level wavelet decomposition tree.

MATLAB · Signal Processing

Professional Activities

Conference Organizer	LatinX in AI Workshop at NeurIPS'21
Student Volunteer	ISMAR'21, UIST'21, CSCW'21

Awards & Honors

2020 - now	Scholarship, *Ministry of Education, Peru*
2020	Vice President, *IEEE Communication Society UPC Chapter*
2020	Partial Scholarship AI Bootcamp, *Satudays AI LATAM Program*
2017 & 2020	Honor Scholarship, *Peruvian University of Applied Sciences*

Relevant Courses

2021	Deep Learning Summer Course, *Neuromatch Academy*
2021	UX/UI Specialization, *CalArt, Coursera*
2020	Intro to NLP and Machine Translation, *PUCP*
2017 & 2020	Honor Scholarship, *Peruvian University of Applied Sciences*

Leadership

INGENIA Peru
2021 - NOW

☑ INGENIA Instagram

Interviewer and Social Media. INGENIA is an ONG that promote STEM careers and provide information to high school peruvian girls and early year female student related with STEM careers and personal development.

IEEE Communication Society UPC Chapter
2017 - NOW

☑ IEEE ComSoc UPC Website

Board Member. Support in the organization of workshops and projects related with telecommunications and management of social media. Speaker at the mentorship program organized for our volunteers and early year students at my university.