



## ABOUT ME

Hello! With four years of experience, I am skilled in AI and Backend Developer.

My skill set includes **self-education**, **critical thinking**, and the ability to lead small teams.

My greatest enthusiasm lies in the realm of game development and continually expanding my knowledge

## CONTACT

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## LANGUAGES

- Spanish
- English - B2

## SKILLS

- Main Programming Languages:** Python, C++/C#.
- BackEnd Frameworks:** Django
- Deep Learning:** TensorFlow, Keras.
- Machine Learning:** Scikit-Learn, OpenCv
- Web Development:** HTML,CSS, Javascript, Typescript
- Front End Frameworks:** React, Flutter.
- Main Cloud Providers:** Azure, AWS.
- Data Analysis:** Pandas
- SQL:** PostgreSQL, MySQL, Maria DB, MS SQL Server.

## CERTIFICATIONS AND BADGES

- AZ-900, Azure Fundamentals** ( July 2022 ).
- Google Cloud Essentials**
- Google Cloud Computing Fundamentals.**
- Many **DataCamp** certifications on ETL process, Data Cleaning, Supervised Learning and Data Visualization in Python and R.

# Noe Vazquez Pompa

## AI & FULLSTACK DEVELOPER

### WORK HISTORY

#### Python AI Developer & Fullstack Developer ( March 2024 - Now)

The RocketCode - Remote

- Python, AI & FireBase**
  - Develop and Improve AI Models:** Develop or enhance machine learning models with various AI techniques.
  - Identify and Fix Security Issues:** Identify and resolve security vulnerabilities by conducting assessments, implementing best practices, and applying patches to ensure system integrity and data protection.
  - Implement existing models:** Usage of existing AI models on different use cases depending on the needings of the project ( OpenAI, Llama, Hugging Face, etc)
  - RAG mainentance:** Implement action plans and KPIs to ensure the effective operation of the RAG ( Allucinations, slow responses, etc).
  - Database:** Utilize Firestore to store user data that will be provided as context for the RAG.
  - Code cleaning and maintenance:** Implement best coding practices and project documentation.
  - Implement Git flow.**
- Fullstack**
  - ReactJS & Next.js:** Develop responsive user interfaces using ReactJS with Vite or Next.js. Implement state management with Redux or Context API and enhance UI/UX using Material-UI or Tailwind CSS.
  - NestJS & TypeORM:** Build scalable backends using NestJS and manage PostgreSQL databases with TypeORM.
  - API Development:** Create RESTful APIs and endpoints with secure authentication and authorization.
- Key goals and achievments**
  - Improve several prediction models accuracy from 12% to 85%.
  - Detected and resolved unauthorized use cases of the project that were causing significant monthly financial losses for the client

#### Software Engineer (January 2020 - Now)

AV Electronic Services ( Self Employed ) - Playa del Carmen

- Python and Azure**
  - Design and Development:** Use Python with the Django web framework for building the backend logic on different projects like a Gym management system and a POS Application Development.
  - Deployment:** Deploy different instances of the systems on Azure by creating a virtual machine or using Azure App Service for a scalable web application and for different clients PythonAnywhere.
- AI**
  - Using NLTK and Transformers to develop intelligent conversations for resolving inquiries, service order statuses, and scheduling appointments for visits by collaborators to their homes and appointments at branch locations.
  - Develop a supervised learning model for suggesting the purchase of spare parts and managing inventories for different branches based on sales and service orders in the system

#### Software Engineer (May 2022 - January 2023)

Riviera Movil - Playa del Carmen

- Python**
  - Store and repair control system:** Design, development, and deployment of Web App using Django, Django Rest Framework, HTML, CSS, JavaScript, and PostgreSQL for service order tracking, spare parts management, sales reports, commissions, and user administration.
  - System Instance Deployment:** Deployment of system instances for customers who purchase a license using MySQL and cloud technologies such as Azure, Amazon, and PythonAnywhere.

#### Software Engineer (January 2021-June 2022)

Playacel Servicios Integrales - Playa del Carmen

- Python**
  - Repair workshop control system development:** Design, development, and deployment of a point-of-sale application using Django, Django Rest Framework, HTML, CSS, JavaScript, MySQL and Apache for service order tracking, sales reports, commissions, and user administration across 8 different branches within a single system.
- Technical Support**

## PROJECTS - LINK TO MY PORTFOLIO ( [HERE](#) )

### MATH-IAS - El tutor virtual para los estudiantes de la Universidad del Caribe

Aiming at monitoring the student learning progress using multiple levels of difficulty in which the student will need to progress to enhance their skills in different subjects implemented in the tutor also creating a LaTeX to Speech translate to implement voice explanations on different exercises.

#### Python

- **Backend Development:** Python, along with the Django web framework, is used for developing the backend of the virtual math tutor.

#### AI (Bayesian Knowledge Tracing)

- **Learning Progress Monitoring:** The BKT technique is employed to model and monitor the learning progress of students. It analyzes the student's responses to exercises, predicts their knowledge state, and adapts the difficulty level of subsequent exercises accordingly.
- **Adaptive Learning Path:** Based on the predictions from BKT, the virtual math tutor can dynamically adjust the difficulty levels of exercises to provide an adaptive learning path for each student. This ensures that students progress at their own pace and focus on areas where they need improvement.

#### Azure

- **Web Hosting:** Azure Web Apps is used for hosting the web platform. It provides a scalable and managed hosting environment for web applications, ensuring that the virtual math tutor is accessible to users on the internet.

### Riviera Soft

Administrative system for service workshop control with integrated POS.

#### Python

- **Design and Development:** Use Python with the Django web framework for building the backend logic.

#### Azure and others

- **Deployment:** Deploy the system on Azure by creating a virtual machine or using Azure App Service for a scalable web application and for different clients PythonAnywhere.

## EDUCATION

### Universidad del Caribe ( August 2016 - December 2023)

*Bachelor's Degree in Computer Science, Mayor in Data Engineering and Organizational Intelligence*

- Studies in: **Data Science, Data Engineering, Machine Learning, Artificial Intelligence.**
- Relevant topics: **Image Processing, Computer Vision, Data Mining, Statistics, Text Mining, Software Engineering, Machine Learning, Artificial Intelligence.**

Relevant Projects using **AI and Python**:

- **ALLMias Unicaribe (Spanish)**: Project where we use the MIAS database to train two models: one for classifying images submitted via the API, determining if an image is a mammogram or not using Google's teachable machine, and another model aiming to predict the presence of breast cancer using the Adaboost classifier.