# Patricio Antonio García Pérez Vela

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Final-semester Computer Systems Engineering student at the University of Guanajuato with a specialization in backend web development. I have experience in Python, JavaScript, and C++, and I am seeking an internship position to apply my skills in building scalable software solutions.

### **PROYECTOS**

### **Fitodex Agrochemical Management**

Salamanca, Guanajuato

Full-stack Developer

August 2024 - January 2025

- Led the full-stack development of a web and mobile platform for the management and classification of
  agrochemicals at the request of the DICIVA division of the university. The platform optimizes the
  control of insecticides for various crops.
- I built 100% of the RESTful API and the backend programming, managing the business logic for products, users, and classifications. Additionally, I implemented the cloud database to ensure the application's scalability and availability, along with its deployment to production.
- I contributed to the frontend of both platforms (40% of the total), creating a complete interface.
- Technologies: Node.js, Express, MongoDB, MongoDB Atlas, Vue.js, Flutter, Fly.io, GitHub.

### **Art Style Classifier with Neural Networks**

Salamanca, Guanajuato

Software Developer

January 2024 - August 2024

- Created and labeled a specialized dataset with hundreds of works of art. I performed image preprocessing and feature engineering, extracting color histograms as key descriptors for training.
- I designed and trained a Multilayer Perceptron (MLP) neural network, achieving a high accuracy of 97% in classifying art styles.
- Technologies: Python, TensorFlow, Keras, Pandas, Scikit-learn, Matplotlib, OpenCV.

## NBA Player Analysis for Role Detection and Improvement Areas

Salamanca, Guanajuato

February 2025 – May 2025

Software Developer

- Applied the K-Means clustering algorithm to analyze NBA player statistics, grouping them into functional roles based on their performance metrics. The objective was to identify profiles and areas for improvement for personalized training.
- Technologies: Python, Pandas, Scikit-learn, nba\_api, Matplotlib.

### **EDUCATION**

### **UNIVERSIDAD DE GUANAJUATO (DICIS)**

Salamanca, Guanajuato

Computer Systems Engineering

August 2021 – Present

Overall GPA: 9.31

### ADDITIONAL SKILLS

- Native in Spanish. Intermediate English level B1-B2.
- Experience in agile methodologies such as SCRUM.