

# Allen Ramírez Ramírez

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## EDUCATION

### Universidad de Costa Rica

Bachelor in Computing with emphasis in Computer Science

Apr 2023

San José, Costa Rica

## WORK EXPERIENCE

### Maintenance Technician

Configuraciones de Tecnología TecSet

Aug 2012 – Apr 2023

Alajuela, Costa Rica

- Provided comprehensive support performing seasonally both corrective and preventive maintenance on computer systems, ensuring optimal performance and minimizing downtime
- Ensured efficient deployment and configuration weekly reinstalling operating systems, installing essential software, and configuring programs and networks to meet user requirements and organizational standards

### Sales Operations Manager

Delicias Cai Comida Express

Mar 2022 – Mar 2023

Alajuela, Costa Rica

- Developed and implemented custom scripts to automate responses to specific client inquiries, significantly reducing response times and streamlining communication processes
- Provided weekend management of software applications for customer service, order and inventory management, communications and advertising, improving timely order fulfillment and efficient operations

## PROJECTS

### Educational Space Game Application in Hackathon |

| Java, Android Studio

- First place national winning team of the NASA International Space Apps Challenge 2022 hackathon
- Developed an educational mobile game using Java and Android Studio, employing genetic algorithms to simulate the evolution of organisms with space-adapted traits
- Implemented an interactive experience showcasing the bases of genetic algorithms and scientific exploration

### Time Tracking and Task Assignment Website

| Python, Django, JavaScript, HTML, SQLite

- Co-developed a web platform using Django, Python, HTML, JavaScript, and SQLite, facilitating student and faculty task and project creation with hierarchical organization and tracking for University Community Work
- Designed documentation, ensuring clear understanding of the functionalities for efficient engagement

### Multiple Vehicle Tracking Comparison System

| Python, Artificial intelligence, YOLO, MOT metrics

- Implemented a centroid-based vehicle tracking algorithm in Python to analyze and compare the effectiveness of diverse Artificial intelligence powered tracking techniques on multiple vehicles
- Evaluated performance of techniques with YOLO and MOT metrics, providing insights for real-world application

### Multi-Threading Data Clustering Application |

| Python, Multi-threading, K-means

- Developed an effective multi-threaded K-means clustering application in Python utilizing MPI4PY for parallelization, enabling efficient grouping of large datasets
- Implemented multi-threading to optimize processing, achieving improvements in handling large data volumes

## AWARDS

### First place national winning team of the NASA International Space Apps Challenge 2022 hackathon |

- First place winning team for Costa Rica and global nominees of the NASA Space Apps Challenge, Oct 2022

## SKILLS

**Languages:** Spanish (native), English (advanced)

**Programming languages:** Python, Java, C++, JavaScript, C#, C

**Databases:** MySQL, SQLite, Microsoft SQL Server

**Artificial intelligence:** Tracking algorithms, Convolutional neural networks, Natural language processing

**Other technical proficiencies:** Git, Scripting, Django, HTML, Google Workspace, Microsoft Office