

Marco A. Bosquez

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EDUCATION

Tecnológico de Monterrey, Campus Ciudad de México

Bachelor of Science in Computer Engineering

Graduated June, 2023

GPA 3.76

WORK EXPERIENCE

Scale AI

Software Developer

Remote

June 2022 - Present

Implementing efficient and reliable web scraping solutions to extract critical data and insights from various online resources. Leveraging my expertise in Node.js, Puppeteer and TypeScript to create robust scripts and automated workflows allowing for seamless data extraction from websites, APIs, and other online repositories.

- Ensuring code maintainability, readability, and enhanced error handling in a streamlined web scraping process.
- Tested scripts using an internal tool, ensuring functionality and reliability in scrape tasks.
- Collaborating closely with a cross-functional team in the project's pipeline.
- Actively participating in code reviews, fostering a culture of continuous improvement and collaborative learning.

NDS Cognitive Labs

Internship Program

Mexico City, MX

August 2022 - December 2022

Developed a web application using ReactJS for dynamic document searches, enhancing the efficiency of information retrieval for end-users. Collaborated with a front-end team in the "Virtual Assistant Management Platform" project to re-train Chatbots, improving their conversational capabilities and user experience.

- Utilized technologies such as MongoDB, IBM Watson, and Axios for seamless data retrieval and integration with the web application.
- Worked closely with a team of peers and university students. Presented project updates throughout its completion.

ACADEMIC PROJECTS

Amazon Recorder System Helper

2022

Developed a full-stack system using Java and ReactJS that works as an extension for Amazon Connect. This web service was used to record all interactions between call center employees and customers to provide business insights and performance metrics for audit and training purposes. <https://www.canva.com/design/DAFC-AICFmk/iNRwH7Y5dZ84vgsd7hp9UQ/view>

- Utilized Java and learned the Spring Framework for the back end. Learned Docker, Springboot, Jenkins, Amplify, alongside various AWS services (S3, EC2, ECR, ECS) to deploy a cloud-based web system.
- Engaged in various testing procedures using Selenium to ensure the reliability and functionality of the system.
- Collaborated as a 24-student team with Amazon as a stakeholder during a 21-week period project.

ML Sentiment Analysis Article (Pending Publication)

2023

An application of Natural Language Processing (NLP) based on mental health tweets. Applying multiclass and multi-label classification of 625 manually labeled tweets to identify the accuracy of our negative sentiment model.

<https://docs.google.com/document/d/1MFH38nQ5xG5OHcYjKd0BxZkVB76p-qil>

- Made with Python and the "SciKit Learn" library through an automated pipeline using Jupyter Notebook.
- Applied ANEW and SentiWordNet dictionaries to classify words and emotions and used a "Word2vec" model for vectorial representations.
- Used libraries like Pandas, NumPy, Seaborn, Matplotlib, WordCloud, SpaCy, Natural Language Toolkit (NLTK) for visual representations.

Artificial Intelligence Project - Urban Mobility

2022

A Unity-based multi-agent simulation that represents traffic of an intersection. The simulation allows cars to search for available parking spaces by traveling through a canvas which contains smart traffic lights. <https://github.com/grchristian/movilidad-urbana>

- Learned AI foundations using Python, Kubernetes, NumPy, Mesa framework, and Flask to create an agent-based model using grids and agent schedulers. Implemented Unity for the 3D graphic representation of the system.
- Data containing XYZ positions in JSON format accessed using endpoints connections by Flask and hosted on IBM Cloud.

SKILLS & INTERESTS

PROGRAMMING LANGUAGES

5 years: Python, C++, C#, Java

4 years: HTML, CSS, JavaScript, SQL, NoSQL

EXTRA-CURRICULAR

Artistic Design and Drawing

Google Software Product Sprint Program (SPS)

VJudge Competitive Programming Contests

ONLINE RESOURCES

[CodeCademy](#) Build Chatbots with Python *NEW*

[Coursera](#) Google IT Automation with Python *NEW*

[LeetCode](#) Problem Solving

TECHNOLOGIES

Oculus VR libraries, Unity, Jupyter Notebooks (Server and Client),

.NET, Excel Macros.