JUAN ARTURO CRUZ CARDONA

PERSONAL INFORMATION

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Online Portfolio: https://alanespartan.github.io/Arturo-CV-Online/ or Scan QR

EDUCATION

Monterrey Institute of Technology and Higher Education   Graduating in December 2021
Bachelor's Degree in Computer Science and Technology
GPA: 3.5/4.0 or 87/100
EGEL CENEVAL: Outstanding performance

WORK EXPERIENCE

General Electric Aviation   Querétaro, Santiago de Querétaro. México

Control Systems Tools Programming Intern   July 2021 - Today

Usage of software technologies such as ProEssentials GigaSoft and Numerical Propulsion System Simulation for tools development in C#. The project I worked on is used to support the process of understanding and analysis of the simulations, but it is not the official tool.

Responsible for:
- Creation of *real-time* plots that show simulation outputs every 15ms
- Usage of programming techniques to reduce the consumption of resources (time and space) to make the tool more efficient.
- Updating of previously programmed functionalities, such as manual grouping of simulated signals, reading of files to load information into the tool at startup, export plots information into csv files, among others.

Freelance Software Developer   Querétaro, Santiago de Querétaro. México

Web and Mobile Developer   May 2020 – April 2021

Software solutions developed using technologies like Firebase, Angular 6, React Js, MongoDB, Docker as well as concepts for project management.
- Nok
  - Helped to oversee the process of developing the frontend and backend of functionalities like sending invitations by sms and email, generation of QR codes for access and creation of logs and reports.
- Perfil COVID-19
  - Project for the early detection of COVID19 as well as the monitoring of patients.
  - Handled most of the front-end development of the project.

Natgas México   Querétaro, Santiago de Querétaro. México

Software Engineer Trainee   November 2019 – March 2020

Software solution developed using technologies like Cloud Firestore, GraphQL, Angular 10, Apollo Link and Ionic as well as Disciplined Agile Delivery and Capability Maturity Model Integration for project management.

Consolidation of a Department of Information Technologies   Tecnológico de Monterrey Campus Querétaro

Software Engineer Trainee   August 2019 – December 2019

Development of software solutions for "International Foods Control" and "Rescate 1 Querétaro" using technologies such as Django, React Native and PostgreSQL.

Usage of software engineering processes based on Disciplined Agile Delivery, Capability Maturity Model Integration and PMBOK.

Different roles performed during iterations such as Product Owner (mainly), Architecture Owner and Team Member.

Bitamina Digital Querétaro, Santiago de Querétaro. México

Web Developer April 2019 - August 2019

Established a new work scheme focused on reducing the work hours the development team should work to finish the projects using Scrum as the main methodology and different technologies such as Git and GitLab.

Usage of technologies such as PhP, MySQL, HTML5, CSS3 and JavaScript to develop and maintain various projects, ranging from static web pages to administrative sites.

Knauf México Querétaro, Santa Rosa Jáuregui. México

Warehouse General Assistant June 2017 - August 2017

Generate reports of equipment tools and updating of excel databases.

MAJOR PROJECTS

Research in Sentiment Analysis August 2021 – December 2021

Python, PostgreSQL, Heroku, IBM Cloud – Titling Project

The objective of my research was to evaluate which interface (a chat-bot or static survey) was most effective to obtain data, therefore providing the most accurate diagnosis from the analysis of emotions and sentiments in Mexican university students.

The implementation of the project was done using Python 3.9.5, Django 3.2.8 and ibm-watson 5.3.0. Furthermore, GitHub was used for version control software and CI/CD alongside Heroku. Collected data was stored into a Heroku-PostgreSQL database instance.

Deep Learning Chatbot Agent May 2021 – June 2021

Python, Keras and NLTK – Class Project https://alanespartan.github.io/Arturo-CV-Online/projects/chatbot.html

A Chatbot capable of responding messages after learning certain patterns the user can introduce and the answer for these. It does not create its own answer, but it chooses randomly.

Reinforcement Learning StarCraft 2 Agent August 2020 – December 2020

Python – Class Project https://alanespartan.github.io/Arturo-CV-Online/projects/starcraft2.html

Build a Smart Terran Agent capable of learning to develop a better strategy over time through a reward system based on the actions it tooks and the state resulting from those.

It uses the psyc2 library to handle all the setup of the video game and as core of the machine learning it uses a Q-Learning Table to save the state of the actions the agent took, to give him a way to analyze and decide which action should be done next.

Gallery August 2020 – December 2020

3D Video game on Unity – Final Class Project https://alanespartan.github.io/Arturo-CV-Online/projects/gallery.html

Video game inspired by PT Silent Hill with the intent of generating a visual experience with a certain degree of suspense through the manipulation of events within the game, such as: repetition of scenarios, interaction with objects on the stage, random changes of lights, aleatory movement of objects and sound manipulation.

Free assets from the community were used to focus on the development of the code of all the events in game.

Multithreading Video Game February 2020 – June 2020

Java – Final Class Project https://alanespartan.github.io/Arturo-CV-Online/projects/multithread.html

Usage of socket programming to connect multiple instances of the video game (clients), then those send information to a listener socket (server) in a particular port and finally returns new information for all other sockets.

In addition, multiple design patterns were used to handle the rendering, creation of objects, sounds and logic to give the user a better experience.

SKILLS

PROGRAMMING LANGUAGES

Advanced: Python, C#
Intermediate: JavaScript, TypeScript, Java
Beginner: C, C++

TECHNOLOGIES

MySQL, PostgreSQL, Git, GitLab, GitHub, Bootstrap 4, Django, GraphQL, Angular, React Js, HTML 5, CSS, JQuery, MS Office, Visual Studio, Visual Studio Code, ProEssentials GigaSoft, Jira

LANGUAGE SKILLS

Spanish: Native
English: 70% - Linguaskill Business B2

CERTIFICATIONS

Professional Web Design (Udemy, 2020)
High-Impact Business Writing (Coursera, 2021)
Python for advanced data scientist (LinkedIn, 2021)