

Romel Aldair Vázquez Molina

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EDUCATION

Instituto Tecnológico de Estudios Superiores de Monterrey Campus Querétaro – Querétaro, México

“Bachelor of Software Engineering”

Average grade: 98/100

January 2019-December 2023(Expected Graduation Date)

University of International Business and Economics – Beijing, China

“Study abroad: Chinese culture and mandarin language”

July 2017 -August 2017

WORK EXPERIENCE

Kumon

Santiago de Querétaro, Querétaro, México

Math Coach

September 2018 – January 2019

- Encouraged self-education on math skills for children and teenagers.
- I emphasize them how to solve tricky problems, by divide it into simple tasks.

PROJECTS

Github link: <https://github.com/RomelVazquez2008/RomelVazquezProjects>

Lexical Analyzer – University Project

2021

This program process a sequence of characters in a txt file, in order to identify the token types into it.

- Designed it in C++ (500 code lines), for the Computational Methods class.
- For this project, I designed a deterministic finite automaton with the purpose of identify every input and output.

Uber Eats Simulator – University Project

2020

This project is an emulation of the famous app Uber Eats, where the use can order some food and pay for it.

- Designed it in C++ (1300 code lines), for the Object-Oriented Programming class.
- On this project, I used the concept of polymorphism, abstract classes and other basic concepts for POO.

Mining Project Management – University Project

2019

The purpose of this application is to improve the communication in the mining sector.

- Designed it in C++ (3000 code lines), for the Object-Oriented Programming class.
- As my first Oriented-Objet Project I designed an UML and implement in the code: inheritance, aggregation, and composition.

Typing Keyboard Gaming – University Project

2019

A game where users type the keyboard as the computer requires. Inspired in Piano Tiles and Guitar Hero.

- Designed it in Python (1000 code lines) with the library Pygame, for the Computational Thinking and Programming class.
- The main idea is to help people increase their speed and made less mistakes at the keyboard use. It was thought for beginners and advance users.
- On this project I implement all the basic's programing tools, as: loops, conditionals, arrays, graphic interface, as many others.

Bracelet for Blind People - High School Project

2017

In a team of three students, we develop a physical prototype and a mobile application to help other people.

- To create the bracelet, we used the Arduino language, a protoboard, a proximity sensor and a Bluetooth module.
- For the application we used MIT app inventor.
- I was in charge to program the application and the sensors.

Battleship Game - High School Project

2016

The classic board game, the user interacts with the computer.

- Designed it in Raptor flowchart interpreter.
- The AI of the opponent used basic probability.

SKILLS

PROGRAMMING LANGUAGES

2 years of experience: Python, C, C++
6 months of experience: Matlab, R, Arduino, MIT app inventor
2 months of experience: Scheme

LANGUAGES

Spanish – Native language
English – B1level /Toefl score 517 (2017)

AWARDS

I participated in “Olympiad science contest” the at the physics and chemistry categories - 2017
I won 1st place on “High School app development” competition. - 2017
I obtained 80% finance-scholarship beneficiary at Tecnológico de Monterrey.
I won 1st place in 10,000m “Queretaro municipal athletics competition” at Juvenile Category - 2019

INTEREST

I practice athletics as a long-distance runner at my university team.
I am interested in gardening and environment.
I like to play strategic video-games, like: Chess, League of Legends, Age of empires and Civilization.

UNNOFICIAL TRANSCRIPT

First Semester	Grade
<ul style="list-style-type: none">Elective Course Mathematics and Science (Mathematics and Data Science for Decision Making)	100/100
<ul style="list-style-type: none">Engineering and Science Modeling	97/100
<ul style="list-style-type: none">Computational Modeling of Movement	98/100
<ul style="list-style-type: none">Computational Modeling Applying Conservation Laws	97/100
<ul style="list-style-type: none">Mathematical Thinking I	100/100
<ul style="list-style-type: none">Analysis of the Structure and Properties of Matter	100/100
<ul style="list-style-type: none">Computational Thinking and Programming	100/100
Second Semester	
<ul style="list-style-type: none">Computational Biology Analysis	99/100
<ul style="list-style-type: none">Elective Course Ethics and Citizenship (Ethics and Psychology: From Self-Knowledge to Fullfillment)	93/100
<ul style="list-style-type: none">Physical Experimentation and Statistical Thinking	97/100
<ul style="list-style-type: none">Computational Modeling of Electrical Systems	97/100
<ul style="list-style-type: none">Computational Modeling of Electromagnetic Systems	89/100
<ul style="list-style-type: none">Intermediate Mathematical Modeling	100/100
<ul style="list-style-type: none">Statistic Analysis	100/100
<ul style="list-style-type: none">Modeling of Engineering with Computational Mathematics	99/100
<ul style="list-style-type: none">Object-Oriented Programming	100/100
Third Semester	
<ul style="list-style-type: none">Elective Course Social and Behavioral Sciences (Anthropology of the Body)	97/100
<ul style="list-style-type: none">Analysis of Differential Equations	100/100
<ul style="list-style-type: none">Implementation of the Internet of Things	100/100
<ul style="list-style-type: none">Programming of Data Structures and Fundamental Algorithms	100/100
<ul style="list-style-type: none">Modeling of Minimum Systems and Computational Architectures	99/100
<ul style="list-style-type: none">Analysis of Software Requirements	100/100
<ul style="list-style-type: none">Exploration Topic (Social Entrepreneurship)	98/100
Fourth Semester	
<ul style="list-style-type: none">Elective Course Humanities and Fine Arts (Art Appreciation)	Currently coursing
<ul style="list-style-type: none">Device Interconnection	Currently coursing
<ul style="list-style-type: none">Implementation of Computational Methods	Currently coursing