Romel Aldair Vázquez Molina

Date of Birth: 08/20/2000
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EDUCATION

Instituto Tecnológico de Estudios Superiores de Monterrey Campus Querétaro – Querétaro, México January 2019-December 2023(Expected Graduation Date)
"Bachelor of Software Engineering"
Average grade: 98/100

University of International Business and Economics – Beijing, China July 2017 -August 2017
"*Study abroad: Chinese culture and mandarin language*"

WORK EXPERIENCE

Kumon Santiago de Querétaro, Querétaro, México

Math Coach September 2018 – January 2019

- Encouraged and taught children and teenagers, to develop their skills in mathematics.
- Taught them how to solve difficult problems, by dividing into simple tasks.

PROJECTS

Github link: *https://github.com/RomelVazquez2008/RomelVazquezProjects*

Lexical Analyzer – University Project (Computational Methods course) 2021
This program processes a sequence of characters in a txt file to identify all the token contained it.
- Implemented in C++ (500 code lines)
- I designed a deterministic finite automaton for the purpose of identifies every input and output.

Uber Eats Simulator – University Project (Object-Oriented Programming course) 2020
An emulation of the famous app Uber Eats, where the user can order and pay for food.
- Implemented in C++ (1300 code lines)
- I used the concept of polymorphism, abstract classes and other basic concepts for OOP.

Mining Project Management – University Project (Object-Oriented Programming course) 2019
An application to improve communication in the mining sector.
- Implemented in C++ (3000 code lines)
- Being my first Object-Oriented Project I designed an UML diagram and coded: inheritance, aggregation, and composition.

Typing Keyboard Gaming – University Project (Computational Thinking and Programming course) 2019
A game where users type from the keyboard as the computer requests. Inspired by Piano Tiles and Guitar Hero.
- Implemented in Python (1000 code lines) with the Pygame library.
- The main idea is to help people increase their speed and made less mistakes on the keyboard. It is aimed at beginners and advance users.
- I implemented all the basic programing functions, such as: loops, conditionals, arrays, graphic interface, as many others.

Bracelet for Blind People - High School Project (Software Development course) 2017
In a team of three students, we developed a physical prototype and mobile application to help blind people.
- To create the bracelet, we used the Arduino language, a protoboard, a proximity sensor and a Bluetooth module.
- For the application we used the MIT app inventor.
- I was responsible for programming the application and the sensors.

Battleship Game - High School Project (Computational Thinking course) 2016
The classic board game where the user interacts with their computer.
- Implemented in Raptor flowchart interpreter.
- The opponent uses basic notions of Artificial Intelligence.

SKILLS

PROGRAMMING LANGUAGES
Python, C, C++ (2 years of experience)
Matlab, R, Arduino, MIT app inventor (6 months of experience)
Scheme (2 months of experience)

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

AWARDS
I participated in "Olympiad Science Contest" in Physics and Chemistry categories - 2017
I won 1st place "High School app development" competition. - 2017
I obtained an 80% scholarship from Tecnológico de Monterrey.
I won 1st place in 10,000m "Queretaro municipal athletics competition" Juvenile Category – 2019

INTERESTS

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

UNNOFICIAL TRANSCRIPT

First Semester	**Grade**
• Elective Course Mathematics and Science (Mathematics and Data Science for Decision Making)	100/100
• Engineering and Science Modelling	97/100
• Computational Modelling of Movement	98/100
• Computational Modelling Applying Conservation Laws	97/100
• Mathematical Thinking I	100/100
• Analysis of the Structure and Properties of Matter	100/100
• Computational Thinking and Programming	100/100
Second Semester	
• Computational Biology Analysis	99/100
• Elective Course Ethics and Citizenship (Ethics and Psychology: From Self-Knowledge to Fullfillment)	93/100
• Physical Experimentation and Statistical Thinking	97/100
• Computational Modelling of Electrical Systems	97/100
• Computational Modelling of Electromagnetic Systems	89/100
• Intermediate Mathematical Modelling	100/100
• Statistic Analysis	100/100
• Modelling of Engineering with Computational Mathematics	99/100
• Object-Oriented Programming	100/100
Third Semester	
• Elective Course Social and Behavioral Sciences (Anthropology of the Body)	97/100
• Analysis of Differential Equations	100/100
• Implementation of the Internet of Things	100/100
• Programming of Data Structures and Fundamental Algorithms	100/100
• Modelling of Minimum Systems and Computational Architectures	99/100
• Analysis of Software Requirements	100/100
• Exploration Topic (Social Entrepreneurship)	98/100
Fourth Semester	
• Elective Course Humanities and Fine Arts (Art Appreciation)	In Progress
• Device Interconnection	In Progress
• Implementation of Computational Methods	In Progress