# Romel Aldair Vázquez Molina

Date of Birth: 08/20/2000 Version: August 2021

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#### **EDUCATION**

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

January 2019-June 2024(Expected Graduation Date)

"Bachelor of Software Engineering"

Average grade: 98/100

#### University of International Business and Economics - Beijing, China

July 2017 - August

"Study abroad: Chinese culture and mandarin language"

2017

#### Algebra University College – Zagreb, Croatia

"Artificial Intelligence Course"

July 2021

#### Universität Wien – Vienna, Austria

July 2021

"Conferences about experimentation and training for software engineering activities"

#### 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/RomelVazauez2008/RomelVazauezProjects

#### **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.

#### 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
<ul> <li>Elective Course Mathematics and Science</li> </ul>	
(Mathematics and Data Science for Decision Making)	100/100
<ul> <li>Engineering and Science Modelling</li> </ul>	97/100
<ul> <li>Computational Modelling of Movement</li> </ul>	98/100
<ul> <li>Computational Modelling Applying Conservation Laws</li> </ul>	97/100
Mathematical Thinking I	100/100
<ul> <li>Analysis of the Structure and Properties of Matter</li> </ul>	100/100
<ul> <li>Computational Thinking and Programming</li> </ul>	100/100
Second Semester	
<ul> <li>Computational Biology Analysis</li> </ul>	99/100
<ul> <li>Elective Course Ethics and Citizenship</li> </ul>	
(Ethics and Psychology: From Self-Knowledge to Fullfillment)	93/100
<ul> <li>Physical Experimentation and Statistical Thinking</li> </ul>	97/100
<ul> <li>Computational Modelling of Electrical Systems</li> </ul>	97/100
<ul> <li>Computational Modelling of Electromagnetic Systems</li> </ul>	89/100
<ul> <li>Intermediate Mathematical Modelling</li> </ul>	100/100
Statistic Analysis	100/100
<ul> <li>Modelling of Engineering with Computational Mathematics</li> </ul>	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
<ul> <li>Programming of Data Structures and Fundamental Algorithms</li> </ul>	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
<ul> <li>Analysis and Design of Advanced Alforithms</li> </ul>	In Progress