

# Romel Aldair Vázquez Molina

Date of Birth: 08/20/2000

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## EDUCATION

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### Instituto Tecnológico de Estudios Superiores de Monterrey Campus Monterrey – Nuevo León, México

*“Bachelor of Software Engineering”*

Average grade: 98/100, (3.9 GPA)

January 2019-June 2024(Expected  
Graduation Date)

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

*“Study abroad: Chinese culture and mandarin language”*

July 2017 -August  
2017

### Algebra University College – Zagreb, Croatia

*“Artificial Intelligence Course”*

July 2021

### Universität Wien – Vienna, Austria

*“Conferences about experimentation and training for software engineering activities”*

July 2021

## WORK EXPERIENCE

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### 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.

## RECENT PROJECTS

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

### Software Development for Arca Continental – University Project (Software Construction and Decision Making)

2022

*In a team of five members, we develop a dashboard web application for the supervisors training in the Company and a videogame as well in order to apply all the concepts learned around the course.*

- Implemented in React (web development), AWS (database), C# and Unity (videogame).
- I designed some assets for the videogame and coded the interaction between them in addition to the database.
- I documented the requirements, design and test case documentation.

### Lights Traffic Optimization – University Project (Multi-agent systems)

2021

*In a team of four members, we develop a simulation of the implementation of smart lights traffic in one corner of our streets, to reduce the vehicular traffic at some hours*

- Implemented in Python, C# and Unity (400 code lines in Python and 300 code lines in C#)
- I designed the car and light traffic agents with the agentPy library.

### 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.

## SKILLS

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### PROGRAMMING LANGUAGES

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

My teammates and I won 1<sup>st</sup> place in “Grand Spirit COED Puerto Vallarta” - 2022

## INTERESTS

I practiced athletics as a long-distance runner for my university team.

Currently practicing gymnastics and cheerleading for my university team.

I like to play strategic videogames, including: Chess, League of Legends, Age of Empires and Civilization.

I enjoy learning topics about physical and emotional health care.

## UNNOFICIAL TRANSCRIPT

First Semester	Grade
<ul style="list-style-type: none"><li>Elective Course Mathematics and Science</li></ul> (Mathematics and Data Science for Decision Making)	100/100
<ul style="list-style-type: none"><li>Engineering and Science Modelling</li></ul>	97/100
<ul style="list-style-type: none"><li>Computational Modelling of Movement</li></ul>	98/100
<ul style="list-style-type: none"><li>Computational Modelling Applying Conservation Laws</li></ul>	97/100
<ul style="list-style-type: none"><li>Mathematical Thinking I</li></ul>	100/100
<ul style="list-style-type: none"><li>Analysis of the Structure and Properties of Matter</li></ul>	100/100
<ul style="list-style-type: none"><li>Computational Thinking and Programming</li></ul>	100/100
<b>Second Semester</b>	
<ul style="list-style-type: none"><li>Computational Biology Analysis</li></ul>	99/100
<ul style="list-style-type: none"><li>Elective Course Ethics and Citizenship</li></ul> (Ethics and Psychology: From Self-Knowledge to Fullfillment)	93/100
<ul style="list-style-type: none"><li>Physical Experimentation and Statistical Thinking</li></ul>	97/100
<ul style="list-style-type: none"><li>Computational Modelling of Electrical Systems</li></ul>	97/100
<ul style="list-style-type: none"><li>Computational Modelling of Electromagnetic Systems</li></ul>	89/100
<ul style="list-style-type: none"><li>Intermediate Mathematical Modelling</li></ul>	100/100
<ul style="list-style-type: none"><li>Statistic Analysis</li></ul>	100/100
<ul style="list-style-type: none"><li>Modelling of Engineering with Computational Mathematics</li></ul>	99/100
<ul style="list-style-type: none"><li>Object-Oriented Programming</li></ul>	100/100
<b>Third Semester</b>	
<ul style="list-style-type: none"><li>Elective Course Social and Behavioral Sciences</li></ul> (Anthropology of the Body)	97/100
<ul style="list-style-type: none"><li>Analysis of Differential Equations</li></ul>	100/100
<ul style="list-style-type: none"><li>Implementation of the Internet of Things</li></ul>	100/100
<ul style="list-style-type: none"><li>Programming of Data Structures and Fundamental Algorithms</li></ul>	100/100
<ul style="list-style-type: none"><li>Modelling of Minimum Systems and Computational Architectures</li></ul>	99/100
<ul style="list-style-type: none"><li>Analysis of Software Requirements</li></ul>	100/100
<ul style="list-style-type: none"><li>Exploration Topic (Social Entrepreneurship)</li></ul>	98/100
<b>Fourth Semester</b>	
<ul style="list-style-type: none"><li>Elective Course Humanities and Fine Arts (Art Appreciation)</li></ul>	100/100
<ul style="list-style-type: none"><li>Device Interconnection</li></ul>	99/100
<ul style="list-style-type: none"><li>Implementation of Computational Methods</li></ul>	100/100
<ul style="list-style-type: none"><li>Analysis and Design of Advanced Algorithms</li></ul>	100/100
<ul style="list-style-type: none"><li>Software Construction and Decision Making</li></ul>	100/100
<b>Fifth Semester</b>	
<ul style="list-style-type: none"><li>Modeling of Multi-Agent Systems with Computer Graphics</li></ul>	100/100
<ul style="list-style-type: none"><li>Analysis and Design of Advanced Algorithms</li></ul>	100/100
<ul style="list-style-type: none"><li>Integration of Computer Security in Networks and Software Systems</li></ul>	In Progress
<ul style="list-style-type: none"><li>Elective Course Leadership, Entrepreneurship and Innovation</li></ul> (Anticorruption in Government, Firms, and Society)	100/100