**Romel Aldair Vázquez Molina**

Date of Birth: 08/20/2000

Version: January 2022

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| EDUCATION |

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| **Instituto Tecnológico de Estudios Superiores de Monterrey Campus Monterrey – Nuevo León, México** |  | January 2019-June 2024(Expected Graduation Date) |
| *“Bachelor of Software Engineering”*  Average grade: 98/100, (3.9 GPA)  **[University of International Business and Economics – Beijing, China](http://english.uibe.edu.cn/)**  “*Study abroad: Chinese culture and mandarin language*” | | July 2017 -August 2017 |

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| **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”*

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| 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. | | |

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| PROJECTS |

Github link: [*https://github.com/RomelVazquez2008/RomelVazquezProjects*](https://github.com/RomelVazquez2008/RomelVazquezProjects)

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| **Lights Traffic Optimization – University Project (Multi-agent systems)**  *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. |  | 2021 |

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| **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.

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| **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.

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| **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.

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| **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.

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| SKILLS |

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

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| 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.

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| 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) 100/100
* Device Interconnection 99/100
* Implementation of Computational Methods 100/100
* Analysis and Design of Advanced Algorithms 100/100
* Software Construction and Decision Making In Progress

**Fifth Semester**

* Modeling of Multi-Agent Systems with Computer Graphics 100/100
* Analysis and Design of Advanced Algorithms 100/100
* Integration of Computer Security in Networks and Software Systems In Progress
* Elective Course Leadership, Entrepreneurship and Innovation

(Anticorruption in Government, Firms, and Society) In Progress