# Mauricio Carrasco Ruiz

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### Education

### **BSc** in Computer Science

2017-2022

National Autonomous University of Mexico (UNAM), Mexico City, Mexico.

Graduated with a grade of (9.77/10), corresponding to a 4.0 GPA. In process of presenting my thesis defense.

### Experience

### Work

### Jr. Back-End Developer

National Preparatory School No. 6 "Antonio Caso" March 2017 - October 2017

- Volunteered for the development and maintenance of the web application responsible for the management of schedules and administration of subjects using PHP and JavaScript.
- Used technologies like **JQuery** and **MySQL** for the database administration.

### Jr. Full-Stack Developer

School of Engineering, UNAM June 2016 - November 2016

- Development and maintenance of an administration system for the XXXVII International Book Fair of the Palace of Mines using the framework Laravel PHP.
- Responsible for the views that were shown to the client as well of its proper functionality with the database.

### Academic and Investigation Projects

## Tools for the Computational Handling of Graphs

January 2022 - January 2023

- Implemented several algorithms on **Java**, **Python**, and **Go** to work on Graph Theory.
- Unit testing development.
- Researched and designed optimal solutions to solve problems like the tree isomorphism problem and the doubly lexical ordering.

### **Heuristics for Non-Deterministic Problems**

December 2020

- Implemented heuristics like the simmulated annealing and the ant colony on C++.
- Found good solutions on instances of problems like Travelling Salesman Problem (TSP), Generalized Assignment Problem (GAP), and the Minimum Vertex Cover Problem.

### Skills

### **Programming Languages**

- Java
- C/C++
- Pvthon
- PHP
- JavaScript

### Personal Skills

- Adaptive.
- Disciplined.
- Responsible.
- Self-learner.
- Time management.

### Social Skills

- Empathic.
- Good communication.
- Problem solving.
- Team player.

### Miscellaneous

■ Web development.

 $(\mathbf{HTML},\,\mathbf{CSS},\,\mathbf{Node.js}).$ 

Database administration.

(Postgres, SQLite, y MySQL).

■ Frameworks.

(Django, Laravel PHP, Sails.js).

- Version control with Git
- System administration with **Unix/Bash**.
- More than 2 years teaching programming and mathematics subjects at UNAM.

### Languages

- Spanish (Native Speaker)
- English (C1)