# Erick Efraín Vargas Romero

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#### **Education**

Escuela Superior de Cómputo (ESCOM- IPN ).

B.S. in Computers System Engineer.

Centro de Estudios Científicos y Tecnológicos #14 (CECyT) 'Luis Enrique Erro'.

Technical track in informatics.

Jan. 2016 - expected Dec. 2021 GPA 87 out of 100 (3.3/4.0)

2012 - 2015

GPA 81 out of 100 (2.7/4.0)

### **Q** Research project (in progress)

### Exploration of complex discrete universes using two-dimensional cellular automata.

- Collaborated developing a CA simulator and implementing an algorithm to make the analysis of each rule easier using mean field theory.
- Collaborated analyzing and exploring random rules of this
- Collaborated writing a thesis.

## **T** Awards and participation

### Grand prize of Mexico (ACM-ICPC)

Participant in 'Grand Prize of Mexico' with team called 'MXerCoders' (2018) and 'ANSIosos' in place 30 of 316 (2019).

### Hacking health Monterrey

Participant on Hacking health Monterrey with project called 'Peditriage'. The main objective of this application was make a pedriatic triage more efficient (2018).

# **Experience**

### Professional Practices / Banco de México (Bank of Mexico)

Worked in a system to generate automatically reports getting the information from all the departments using SSRS that works with Visual Basic and it is powered by SQL Server and Sharepoint.

- Software performance was optimized 50% rewriting some recursive code and avoiding consulting a lot of times information.
- Created new reports that allow analysis of new projects and know the current state of each project.

## Projects

### Virtual Spaces Manager

This aplication was developed in order to speed up register virtual spaces of the 'Polytechnic Unit for Virtual Education' (UPEV) developed using JavaScript and documented using LATEX.

- Collaborated in a team of 30 persons in which I had the role of analyst.
- Created some documentation to this project including use cases, class diagrams, BPMN diagrams, bussiness rules, etc.
- Created LATEX templates to make the documenting process less cumbersome.

#### Subgüey

Mobile application created to make easier to travel by subway or metrobus in Mexico City. Developed using Java for Android to backend and XML to frontend.

- Collaborated in a team of 5 persons in which I had the rule of frontend and backend developer.
- Heavily used and learned Google firebase services.

## </> Technical skills

## Programming languages

4 years: Java. 2 years: C / C++.

1 year: C#.

Beginner: PHP, JavaScript, Dart and Visual Basic, Python.

## Other technologies

Git, LATEX, HTML, CSS, Java for android, Flutter, JQuery, ReactJS, SQL.

### Courses

Introduction to flutter development by App Brewery.

## Languages

Spanish (Native) and English (B2 level).

## Activity

Member of Artificial Life Robotics Lab (ALIROB). Member of ACM student chapter: algorithm club.