

Erick Efrain VARGAS ROMERO

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Education

Superior School of Computer Sciences (ESCOM- IPN).
B.S. in Computers System Engineer.

Jan. 2016 - expected Jun. 2022
GPA 87 out of 100 (**3.3/4.0**)

Center of Scientific and Technological Studies #14 (CECyT) 'Luis Enrique Erro'.
Technical track in informatics.

2012 - 2015
GPA 81 out of 100 (**2.7/4.0**)

Research

Exploration of complex discrete universes using two-dimensional cellular automata (CA).

- 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 CA using the simulator previously mentioned.
- Participated in the third interpolytechnic meeting of the network of experts in complex systems with the topic "Complex behavior emerging in two-dimensional discrete dynamic systems"

Experience

Professional Practices / BANCO DE MÉXICO (BANK OF MEXICO) [JAN 2020 - AUG 2020]

Worked in a system to generate automatically reports getting the information from all the departments using **SQL Server Reporting Services** (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.

Internship / MICROSOFT [MAY 2021 - AUG 2021]

Worked using web technologies to send push notifications to different platforms such as **Android**, **IOS** and **Windows**. Additionally this service is being deployed for use by millions of customers in the **Azure Portal**.

- Created user interface using **knockout.js** and **TypeScript**
- Created a payload generator for push notifications services (**APNS**, **FCM** and **WNS**)

Projects

Virtual Spaces Manager

This application was developed in order to speed up register virtual spaces of the 'Polytechnic Unit for Virtual Education' (UPEV) developed using **JavaScript** and documented using **L^AT_EX**.

- 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, business rules, etc.
- Created **L^AT_EX** templates to make the documenting process less cumbersome.

Technical skills

Programming languages

4 years: Java for Android and Desktop applications.

2 years: C and C++ for Desktop applications.

1 year: C# for Desktop applications.

3 months: TypeScript.

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

Other technologies

Git, **L^AT_EX**, HTML, CSS, Flutter, JQuery, ReactJS, SQL, Knockout.js.

Awards and participation

Grand prize of Mexico (ACM-ICPC)

- Participated with team called 'MXerCoders' (2018)
- Participated with team called 'ANSIosos' in place 30 of 316 (2019) and in place 41 of 351 (2020)

Hacking health Monterrey(2018)

- Participated on Hacking health Monterrey with a project called 'Peditriage' in a multidisciplinary team up of medical and computer systems engineering students.
- Developed a mobile application in order to make a pediatric triage more efficient.

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.