Erick Efraín 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 previosly mentioned.
- Participated in the third interpolytechnic meeting of the network of experts in complex systems with the topic "Complex behavior emerging in two-dimsional discrete dynamic systems"

🏆 Awards and participation

Grand prize of Mexico (ACM-ICPC)

- Participanted with team called 'MXerCoders' (2018)
- Participanted 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.

💼 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.

🚀 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 **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, business 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 for Android and Desktop applications.
2 years: C and C++ for Desktop applications.
1 year: C# for Desktop applications.
Beginner: PHP, JavaScript, Dart, Visual Basic and Python.

Courses
Introduction to flutter development by App Brewery.

Languages
Spanish (Native) and English (B2 level).

Other technologies
Git, LaTeX, HTML, CSS, Flutter, JQuery, ReactJS, SQL.

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