



Skills and Abilities

- Great understanding of modern **C++11/14/17 and the STL** using the *C++ Core Guidelines* (3 years of experience); also a great understanding of **C**. I have been using both languages mainly for competitive programming.
- Really great knowledge (1 year of experience) in many modern **JavaScript (ES2015-16)** and front-end technologies especially around **React**, and general knowledge of **TypeScript**.
- General knowledge of **Java** and **Kotlin** (1.5 years of experience), also capable of creating basic android apps.
- Competent in **Dart** and the **Flutter SDK**. Used it to create cross-platform apps following **material design** guidelines.
- Great at web technologies: **HTML5 & CSS3** and back-end languages like **PHP7** and **Python3 (using Flask)**.
- Know and love to work in the **object oriented** and **functional** paradigm and using the **reactive programming** ideas.
- Great at working with **LaTeX**, mainly around math and computer science. 2 years of experience.
- Comfortable working with a team using version control **GitHub** and working in **Windows, GNU/Linux** and **MacOS**.
- **B2 English** certification by the IPN and KET certification by the Cambridge English Qualifications.



Projects, Achievements and Courses

- Creator of a **WordPress** discrete **math, physics and algorithms blog** / project with around **45 000 views** this year called *CompilandoConocimiento.com* writing about basic data structures and automata theory and author of 6 little books in Spanish about the bases of *Number Theory, Complex Analysis, Discrete Math, Statistics, Linear Algebra* and *intro to Databases* which have been downloaded around 5,000 times.
- Author of a simple **competitive programming reference website** and author of a repository of solutions for many online judges problems like *UVa, Codeforces* and *OmegaUp*.
- Creator of a **simple point of sale** system using **React-Flask-MySQL** to administer the local business of my family.
- Participant of the **ACM-ICPC "Gran Premio de Mexico & Centroamerica 2017"**, finalized in place 183 of 404 teams.
- **Third place** in the 2018 **annual programming contest "Donald Knuth"** at **ESCOM IPN** University.
- **Flutter certification** by the **GDG UNAM** (Google Development Group UNAM) from June to July of 2018
- **UNAM Mobile** course: **Intro to Kotlin for Android** development on August 2018



(semi) Work Experience

Faculty of Architecture, UNAM / Web Maintainer

November 2016 - July 2017, Ciudad Universitaria, México City

Maintained, updated and rewrote part of the codebase of the student's website especially redesigning the sign up process for classes using the material design guidelines finishing with a more intuitive and modern interface, also fixed some rather obvious sql injections vulnerabilities, fixed occasionally hardware problems with the servers too.

Contact: rodrigo@unam.mx

Centro Escolar Acozac / Auxiliar Teacher

January 2014 - January 2015, Acozac, México State

Auxiliar professor in elementary math in a private group of 10 students at CEA Junior High.

Contact: eherreracarrillo@gmail.com



Education

UNAM - Faculty of Science/ Bachelor's degree in Computer Science

August 2017 - December 2022

Freshman, learning about the theoretical part of computer science and especially learning hardcore math: calculus, number theory, graph theory, set theory, and numerical analysis. GPA 9.2-10.

IPN - ESCOM / Bachelor's degree in Computer Systems

August 2016 - May 2020

Top ranked student for 5 consecutive semesters, GPA 9.2-10. Participant of the university ACM Student Chapter (better known as "Club de Algoritmia ESCOM") for the last 4 semesters.

IPN - CECyT 9 / Technical career in Digital Systems

August 2013 - May 2016

During my high school years I did a technical career in digital systems where I learned about microcontrollers, basic digital and analog electronics and low level programming in C and assembly.