

# Oscar Andres Rosas Hernandez

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## Education

**IPN - Superior School of Computer Sciences / Bachelor's degree in Computer Systems Engineering**  
Top ranked student for 5 consecutive semesters. Participant of the ACM Student Chapter (better known as "Club de Algoritmia ESCOM") for the last 4 semesters.

August 2016 - May 2021  
GPA 92 out of 100

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

Sophomore, learning about the theoretical part of computer science and especially learning high level math as calculus, number theory, graph theory, set theory and numerical analysis.

August 2017 - Dec. 2021  
GPA 91 out of 100

**IPN CECyT 9 - Center of Scientific and Technological Studies / Technical career in Digital Systems**

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

August 2013 - June 2016  
GPA 87 out of 100

## Projects

**CompilandoConocimiento** - Personal education project: Science, math, algorithms and computer science Since Dec. 2016

- **Blog:** Creator of a blog (in spanish) to learn about science in general, discrete math, physics, vectorial analysis, simple algorithms and data structures (stacks, queues, BST, AVL trees, etc), automata theory, intro to C and to object oriented programming using Java. The blog has around 100 000 views since the beginning of 2018.
- **Books:** Author of 6 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 9,000 times.
- **Reference:** Author of a competitive programming reference website: [CompilandoConocimiento.github.io/Reference/](https://CompilandoConocimiento.github.io/Reference/)

**TdeTiendita** - Point of sale system

May 2018

Creator of a simple point of sale system using React-Flask-MySQL to administer the local business of my family. I develop all the system, from the design of the database to the implementation of the frontend and backend.

## Work Experience

**Software engineering intern** / Facebook Inc.

January 2019 - April 2019, Menlo Park, California, USA

- Working at the Search @ Messenger team in web (front and backend) to create a better search experience around messages and navigation.

**Web maintainer intern** / Faculty of Architecture, UNAM

November 2016 - July 2017, México City

- Maintained, updated and rewrote part of the codebase of the student's website especially redesigning the signup process for classes using MaterializeCSS and JQuery finishing with a more intuitive and modern interface.
- Fixed some rather obvious SQL injections vulnerabilities and rewriting some back-end scripts using PHP.

## Awards

- **Participant of the Grant Prize of Mexico (ACM-ICPC) in 2017 and 2018**, with the team *BrokenSort*, finalized in place 91 of 404 teams.
- **Third place in the 2018 annual programming contest "Donald Knuth"** at Escuela Superior de Cómputo (ESCOM - IPN).
- **Student of academic excellence** for 5 semesters at ESCOM.
- **Google Foobar** participant.

## Courses and Certifications

- **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.
- **DAT208x:** Introduction to Python for Data Science learning initiative of Microsoft through edX on Jan 2019.
- **B2 English certification** by the IPN and KET certification by the Cambridge English Qualifications.

## Programming Languages

**3 years:** modern C++ 11/14/17; C.

**2.5 years:**

JavaScript (ES2015+), specially around the **React** ecosystem

**1.5 years:**

Java and Kotlin (also basic idea of creating basic android apps).

PHP 7 (Hack); Python 3.

**6 months:** Dart (and the Flutter SDK); MySQL and GraphQL

## Technologies I know and love

- HTML5, CSS3, MaterializeCSS, jQuery, Typescript, Flow, React, React Hooks, npm, Webpack, Babel.
- Flutter SDK, Android SDK.
- Git, Mercurial (FB fork), Github, UNIX / Bash, Linux, Flask.
- LaTeX (mainly for math and computer science docs).