# 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**

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

CompilandoConocimiento.com - Personal education project: 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, automata theory, intro to C and to object oriented programming using Java. The blog has around 150 000 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/

#### TdeTiendita - Point of sale system

Creator of a point of sale system (using React-Flask-MySQL) to administer the grocery store owned by my family. I was in charge of the project and developed it with 2 of my friends; I designed the database system and implemented all the front end and back end services.

May 2018



# **Work Experience**

## Software engineering intern / Facebook Inc.

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

Worked at the "Search @ Messenger" team in web (front and backend); I created a better search experience by adding message search as a first class citizen in the web version of the product and helped improve the navigation of the product following the M4 redesign.

#### 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 and a better user experiences. Fixed some rather obvious SQL injections vulnerabilities and rewrote 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 (in 2018).
- 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.
- Speaker at Talend Land 2019: Workshop Intro to React

# Programming Languages

3 years: JavaScript (ES2015+), specially around the React ecosystem 2 years: modern C++ 11/14/17; C.

#### 1.5 years:

Java and Kotlin (also basic idea of creating basic android apps). PHP 7 (and Hack); Python 3, MySQL

6 months: Dart (and the Flutter SDK) and GraphQL



## **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.



## 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).