José Octavio MOLINA NAVA

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EDUCATION

Tsinghua University   Graduating in july 2024
*Bachelor of Science in **Physics**, minor in **Computer Science***
Chinese Government Scholarship for Academic Excellence, BBVA Scholarship   *GPA 3.05/4.00*

Capital Normal University, Beijing   Fall 2019 - Spring 2020
Chinese Language intensive training program

WORK EXPERIENCE

Institute of Space Instrumentation (LINX), Institute of Nuclear Sciences, UNAM   Mexico City, Mexico

Electronic Instrumentation Research Intern   October 2018 - November 2018

- Collaborated with graduate students on the testing and research of new cosmic particle detectors;
- Learnt awk for the displaying of data from the Pierre Auger cosmic particle observatory in Argentina;
- Heavily improved my problem-solving and communication skills.

MAJOR PROJECTS

Extremely Reduced Instruction Set (ERISC)   2017 - 2018
Led a team of international students developing a prototype of the ERISC

- Developed a program in C++ for interpreting and displaying instructions sets in less than 4MB of memory;
- The data display was implemented using Qt framework, applying good practices of OOP;
- The program was tested by the Department of Computer Science of Tsinghua University.

CallTheGuy!   2020
Developed a job-searching app for home professional and personal services for iOS devices

- Mostly written in Swift and Objective-C, using Xcode Autolayout, including SQLite as database;
- Implemented Alamofire for simple networking tasks, among many other cocoapods.

Posts App   2017-2019
Developed an iOS social network app for fun

- Used Swift, Objective-C, Mapskit, Xcode AutoLayout, Firebase from Google, simple networking libraries.

Metasapions initiative   2017 - 2018
Founded and led the biotechnology project aiming to reduce the pollution levels in the two main rivers in my hometown

- Engineered natural synthesized soaps of multiple categories, using cooking oil from local businesses;
- Decreased the levels of eutrophication of the water in the rivers Atoyac and Zahuapan in Tlaxcala City.

SKILLS

PROGRAMMING LANGUAGES

3 years: Python, awk
2 years: C/C++, Javascript, Swift, C#
4 months: Matlab, Java, Dart

TECHNOLOGIES

iOS SDK, HTML, CSS, SQL, MongoDB (NoSQL), Django, React.js, Git, Amazon Web Services (AWS), VirtualBox, Firebase, Flask, Unix/Bash, Pandas, Numpy, Arduino.

LANGUAGES:

Spanish (Native), English (TOEFL iBT 91, 2017), Chinese (HSK 4, 2020)

AWARDS

Bronze Medal at Mexican Mathematics Olympiad (2017)
Gold Medal at Exposciences Mexico (member of national selection team) (2017)
Gold Medal at Gauss National Mathematics Competition (2018)
Finalist at Tec de Monterrey International Science Contest (2018)
Finalist at Mexican Space Agency Space Bootcamp (2017)
Honorable Mention at National Chemistry Academic Contest (2016, 2017)
High School Valedictorian GPA: 98/100

OTHER LEADERSHIP ACTIVITIES

Speaker at iGEM Competition UAM Congress (2021); Nibiru Astronomical Society, UNAM (2020 and 2021); Space Academy of Mexico (2020).
Lecturer at The House of the Student, a center for socioeconomically disadvantaged students coming from the Sierra Norte coming to study at my hometown local college (2020)