José Octavio MOLINA NAVA

jose.octavio@ciencias.unam.mx +52 2411726836 github.com/tavo-molina linkedin.com/in/octavio12/

EDUCATION

University of California, Berkeley June 2021 - August 2021
Visiting International Student, CS61BL (Data structures and programming methodology) Grade: A

Tsinghua University 2020 - July 2024 (expected)
*Bachelor of Science in **Physics**, minor in **Computer Science***
Chinese Government Scholarship for Academic Excellence, BBVA Foundation Scholarship GPA: 3.1

EXPERIENCE

Magicsheets | Frontend Development Intern June 2021 - August 2021
Internship

- Designed and built three main pages: user settings, data management and billing, using HTML, CSS and React.js
- Implemented features for user interaction, the code was connected with the backend (AWS) for user sign in/up
- Improved user experience by allowing fast and simple changes of settings, billing method and data services

Facebook Hack En Español | Team Leader March 2021
Coding Competition

- Solved challenging coding problems and pitched an innovative project, ranked 8th in the international final round

SELECTED PROJECTS

Gitlet June 2021
Git-like Version Control System

- Used Java to build a functional clone of Git able to add, commit, checkout, reset, merge, manage branches and more
- Implemented data structures to efficiently organize and track commits, such as linked lists, trees and disjoint sets
- Applied knowledge of software engineering, serialization for data persistence, unit and integration testing

Build Your Own World (BYOW) July 2021 - August 2021
2D tile-based game of randomly generated worlds

- Built an engine that generates pseudorandom explorable worlds (rooms connected with hallways), using Java
- Added features such as save, load and replay past games, change languages, NPCs and challenges to win the game
- Applied knowledge of shortest paths, minimum spanning trees, randomness, data visualization and user interaction

Extremely Reduced Instruction Set Computer (ERISC) October 2020 - December 2020
Machine architecture project | Team leader

- Developed a C++ based compiler able to parse inputs, declare variables, methods, iterate, and analyse syntaxis
- Implemented recursive methods to read and compile inputs in .txt files, written in the ERISC own language
- The output files were written in .txt files, used Qt framework for vivid display

CallTheGuy! December 2020 - present
Job searching app for at home services | Personal project

- Written in Swift and Objective-C, including SQLite as database and Alamofire for simple networking

SKILLS

PROGRAMMING LANGUAGES
1.5 years: Python, C/C++, Javascript, Swift
5 months: Matlab, Java, awk

TECHNOLOGIES
Git, HTML, CSS, SQL, MongoDB, React.js, Node.js, AWS, Firebase, Unix/Bash, Pandas, Numpy.

LANGUAGES
Spanish (Native), English (TOEFL iBT 91), Chinese (HSK 5)

AWARDS AND CERTIFICATIONS
High School Valedictorian GPA: 98/100
Bronze Medal at Mexican Mathematics Olympiad (2017)
Finalist at Tec de Monterrey International Science Contest (2018)
Jane Street FOCUS participant
JP Morgan Software Engineering Virtual Experience Participant

LEADERSHIP ACTIVITIES
NASA SpaceApps Challenge 2021, City Leader; Speaker at iGEM UAM Congress (2021), Nibiru Astronomical Society, UNAM (2020, 2021).