David Zarate-Lopez

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Education

Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM)   *Puebla, Mexico* | Expected graduation: June 2024
- Bachelor of Engineering in Computer Science (4th year).   **GPA :** 9.5/10

Hochschule für Technik und Wirtschaft Berlin (HTW)   *Berlin, Germany* | October 2022 - September 2023
- Study abroad program offered in English including subjects such as iOS development with SwiftUI, Python, and German.

Laspau: Harvard & MIT   *Cambridge, Massachusetts* | Summer 2021
- Student Leaders of the 21st Century program given by Harvard and MIT faculty.

Skills

Proficient: C++, Swift, SwiftUI, Python, SQL, Git   **Intermediate:** HTML, CSS, JavaScript, React, MongoDB, UIKit, Unit testing, Flask, GraphQL, REST-APIs, Unity, GameMaker, Alamofire

Beginner: Java, Android Studio, C#, Node JS, VisionKit

Experience

iOS Engineer Intern at T-Systems International GmbH   *Berlin, Germany* | February - November 2023
- Developed T-Systems's Data Intelligence Hub (DIH) first mobile app using Swift, SwiftUI, Alamofire, OAuth, URLSession, and MVVM design.
- Managed and developed all stages of the product: from gathering software requirements, implementation, releasing through TestFlight, testing the app inside the DIH department, documentation, and finally fixing errors and debugging the app.
- Implemented unit tests and state-driven development in different components of the app.

Software Engineer Intern at Nextdoor   *San Francisco, California* | June 2022 - September 2022
- Developed Nextdoor's Video Feed in iOS, allowing to interact and scroll down through different videos when posts with a video get clicked.
- Designed with Swift and using UIKIT, queries, and fragments with GraphQL, keeping an MVVM design pattern.
- Implemented pagination for this feed, changing the author's information, reactions, and comments when the user scrolls through the videos.
- Part of the Feed UX team, collaborating with 10 fellow developers.

Major Projects

MyTasks   *Berlin, Germany* | February 2023 - March 2023
- Developed an iOS app using Swift and SwiftUI that stores lists of tasks, allowing users to create, delete, and modify the lists and tasks.
- Implemented network requests using URLSession to store and update the app's information.
- Provided authentication with OAuth with T-Systems accounts.
- Used Mockingbird to mock classes to test the Network layer and implemented unit testing as well.

Web Application Project for Ternium   *Monterrey, Mexico* | January - June 2022
- Built a web app that displays and finds anomalies inside CSV records of Ternium working alongside a 7 person team.
- Developed with React (Javascript), ChartsJs, Bootstrap, Flask, and MongoDB
- Designed components to upload files, link up parameters using react beautiful-dnd, and delete graphics generated from the application.

Focus   *Puebla, Mexico* | August - October 2021
- Developed an iOS App with 6 games for an NPO organization to help children with ADHD develop their attention and memory
- Designed the games Impostor and Zig Zag in Xcode and programming with Swift using the MVC design pattern with 4 peers.
- The first game consisted of displaying 9 plants from which all of them except one have a matching pair, and that one has to be identified.
- In Zigzag has to get from point A to point B collecting 1 or more coins that are only displayed for a short amount of time in a 4x4 grid.

Data Structures Project   *Puebla, Mexico* | January 2021
- C++ project which implements different data structures to store sort and search around 32,000 network traffic entries inside a text file.
- Implemented vectors, doubly linked lists, binary search trees, graphs, and hash tables.
- Used the merge sort algorithm to order the data regarding each IP address and linear search to identify certain entries.

Leadership

Tec de Monterrey Ambassador   *Puebla, Mexico* | August 2020 - July 2022
- Facilitated the admission of students to ITESM Puebla with the creation and impartation of around 40 events, workshops, and informative sessions with more than 600 attendees to help them through the entire admission process.
- Trained in storytelling, networking, leadership, public speaking, and teamwork.