Andrés Altamirano Montealvo

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Contact info

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EDUCATION

ITESM – Monterrey
Bachelor of Science in Computer Systems Engineering (ITC)
Graduating in December 2017
Cumulative GPA: 96/100

WORK EXPERIENCE

August – December 2014 — Minirobótica (ITESM Social Service): Instructor

- Worked as an instructor to teach children (9 – 11 years old) about robotics and programming in a way they could understand the logic behind it, using the Lego NXT Mindstorms robotics kit. I handled a group of six children and worked with them through different challenges, coaching them so that they could come up with solutions to problems by themselves. My personal goal in this volunteering was to inspire them to pursue one of these fields in their future careers.

January – May 2015 — TImpulsa (ITESM Social Service): Instructor

- Worked as an instructor in this program to teach children logical and critical thinking and how programming works with the use of an interactive software (Scratch). Through this volunteering I wanted to make the children notice that they could have fun while developing new skills and teach them to solve problems using logic.

Projects

March 2015 — Pebball

- Developed, along with three other people, an application for the Pebble smart watch, which won the "Best Pebble Hack" award at HackMTY 2015 hackathon. The application controlled a "Sphero" robot with the movement of your arm while wearing a Pebble watch. It was made possible through Bluetooth communication between the smart watch, and android device, and the Sphero. I was in charge of the Android side of the project, which was receiving the data from the Pebble smart watch, analyzing the data, and communicating the corresponding movements to the Sphero. Developed using C and Java.

May 2015 — Movie Guide

- Developed in a team of four an executable application that worked as a movie guide. It stored information of all the nearby theaters (its movies, schedules, prices, capacity), using text files as our database, gave the user permission to search and access data, and the administrator the ability to modify any stored information. I worked on all aspects of the program, which was heavily dependent on object-oriented programming. Developed using C++.

April 2015 — Coin Flip

- Developed an application for the Pebble smart watch, which simulates a coin flip in the watch's screen. When the user tilts its watch, an animation plays of a coin flipping and then lands, displaying either 'Heads' or 'Tails' with a 50/50 possibility. Developed using C.

April 2015 — Pebble Tap Tap

- Developed a game application for the Pebble smart watch. The game consists of three lines through which various circles move. When these circles reach an outlined circular spot, the user must tap the corresponding button (up, middle, or down), depending on the line in which the ball is. If it was pressed in the right moment, the user gains points according to how precise his press was. If they fail to press or they press incorrectly, they lose one out of three lives they have. Once all lives are used up, the game ends and the score is recorded. Developed using C.

February 2015 — Calculator

- Developed an Android application which functions as a regular calculator, with the options of adding, substracting, dividing, and multiplying numbers given a text in string format by buttons pressed by the user. The result is evaluated using the infix-postfix algorithm and is displayed on the screen. The user can also modify the background color, the buttons' colors, and the outline color of the calculator. Developed in Android Studio using Java. Currently published on the Play Store.

October 2014 — Pong

- Developed a clone of the game "Pong" using National Instrument's LABVIEW software.

September 2014 — Soccer League Simulation

- Developed a program that simulated a regular season of the Mexican soccer league. Purely text-based, the application simulated all the soccer games in a regular season, including playoffs and championships, creating the results based on chance, however, it was also based on real statistics to have more accurate results of the real games. Developed in C++.

TECHNICAL SKILLS

Computer Science	C++ (Intermediate), C (Intermediate), Java (Intermediate), Python (Basic), Haskell (Basic), Assembly (Basic), HTML, CSS, Android (Basic). Experience working with UNIX.
Spoken Languages	Spanish (Native), English (Fluent), German (Basic)

AWARDS

March 2015	Won the “Best Pebble Hack” award at the HackMTY hackathon among 85 teams.
May 2015	Placed 7th in university-wide programming competition “Top Tec Programmer”.
May 2015 – Present	Currently participating in both “Premio Mexicano de Programación” and “Gran Premio Mexicano de Programación” programming competitions.
August 2015	Obtained the highest GPA score in the period January-May 2015 among the whole ITC career.
August-November 2013	Participated in “Top Teen Programmer” competition.