

Alejandro Martinez Gonzalez

Software Engineer and Data Scientist

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Colorado School of Mines graduate looking for full-time opportunities in the field. Computer Science foundation with a specialty in Data Science with Python and R. Passionate and driven to expand and apply my knowledge with good communication skills.

EDUCATION

B.S. Computer Science – Data Science
Colorado School of Mines

May 2022
GPA: 3.018 | Major Specific GPA: 3.25

WORK EXPERIENCE

Outsized Opinions – Burbank, CA
Freelance Software Developer

Jan 2022 – Jun 2022

Developed web application as instructed by supervisor to launch the company at designated date. Used Django, JavaScript, and HTML.

- Created email confirmation for new users, including the HTML formatting embedded within it.
- Instantiated date ordering of events, which required translating every possible date format within the web application to a standard using Moment, then applying the ordering algorithm to certain DataTable column entries.
- Migrated database from SQLite to a privately hosted PSQL database within the web server. Created backups, relations, and handled conflicts within the existing data ending in a secure and dependable database.

CS @ Mines – Colorado School of Mines, Golden, CO
DEC-Tech Teacher Lead & U-Climb Mentor

May 2019 – Jan 2020

Two different contracts separated between Summer 2019 and Fall 2019. As a DEC-Tech Teacher lead, I was responsible for:

- Creating curriculum for Summer Camp to teach Computer Science principles to Camp participants.
- Teaching Computer Science principles to the participants every day of the camp while ensuring participants at different levels would be passionate and challenged with the classes.
- Between camp classes aided the department reach ADA compliance within their web applications by contrasting colors and including mobile compatibility for the hearing impaired.

The U-Climb Mentor contract is a Teaching Assistant job for CSCI 101, while also a mentor job for newcomers to the Computer Science department.

- Teaching and aiding during lectures and hosting office hours for the students.
- Creating review sessions for exams and grading exams and assignments.
- Meeting with mentees to ensure the transition into the department is smooth and simple while keeping a friendly, but also professional, relationship with them.
- Communicating with the professors and heads on students' point of view of the class for that semester.

PROJECT EXPERIENCE

Lunar Outpost CSM Field Session – Golden, CO

May 2021 – Jun 2021

In a team of five, developed an end-to-end solution for a Lunar Rover using a TurtleBot and Raspberry PI for the robot itself, a python socket connection, and a web application for controlling the TurtleBot. My task in this team was communicating the Raspberry PI with the Web Application.

- Used simple Python sockets to begin communications between Web Application and TurtleBot with known IP addresses and ports.
- Created a communication between the two unknown IP addresses and ports, hosted a 'Rendezvous Point Server' in Python which had a static IP address. Then each of the two components would automatically push their information to the server and be stored within a PSQl database.
- When either component would like to communicate, it would send a GET request to the Python server and the server would retrieve the information from the PSQl database with the SQL Manager Library and send the requested IP address and port to establish direct connections with the sockets.
- Implemented both boot routines for the Web Application and the TurtleBot to assure the connection will always be reachable.
- Awarded '**Most Technical Project of Field Session 2021**'.

Alteryx Data Challenge at HACKCU IV – Boulder, CO

Feb 2018

As a Senior in High School, I teamed up with two Colorado School of Mines Juniors to finish the Alteryx Data Challenge. The challenge consisted in obtaining the attendance of an event and what the event was from an 'unexplained dataset'.

- Used Python with NumPy and Pandas to create a DataFrame with the given JSON and correctly format it.
- Ran a search algorithm to find the date of the event and the event itself.
- Awarded **Second Place** and a tour of the Alteryx facilities in Broomfield.

OTHER POSITIONS & SKILLS

CS@Mines Justice, Equity, Diversity and Inclusion representative – Golden, CO

Jan 2021 – Dec 2021

Formed part of a committee with another student and faculty to ensure students with different backgrounds were given the same opportunities throughout the department.

Vice President of Beta Theta Pi at Colorado School of Mines – Golden, CO

Jan 2021 – Dec 2021

Was charged of leading and ensuring the fraternity was meeting the expectations and requirements expected.

Homecoming Concert Organizer at Colorado School of Mines – Golden, CO

Jan 2019 – Dec 2019

Lead a team of twelve students to contract an artist, set up the stage, create propaganda and ensure the safety of the event while communicating with school heads.

Wooden Leadership Institute for Men of Principle Participant – Oxford, OH

May 2019

Learned communication skills for different industries and relationships.

Bilingual in Spanish and English

Native from Spain (permanent resident in the USA) with fluent English for eight years.