

# Mel Perea Jr

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## Education:

**University of Colorado, Boulder** - *Bachelor's in Computer Science*

August 2017 - May 2020

## Skills (Languages and Tools):

- Python, Algorithms, Git, MySQL, Visual Studio, Flask, Data Analysis, Django, AWS, React Native, Linux

## Software Engineering Experience:

**BitBroker Labs - Berkeley, CA (Remote)** - *Software Engineer Intern*

July 2019 - November 2019 | Web location: <https://coinsumo2.carrrd.co/>

- Maintained and debugged the code of our CoinSumo cryptocurrency exchange website/app, testing website features and functionality while also analyzing user data to find patterns in behavior.
- Worked with highest in-demand web and cryptocurrency technologies like React, NodeJs, Python, and Smart-Contract (DApps) development while being mentored by a senior software engineer.
- Launched and maintained Wordpress Single Instance on the Google Cloud Platform Marketplace.
- Mentored, monitored, and provided documentation for newly hired interns as the internship progressed.

**Student Project: Pathfinding Visualizer** - <https://github.com/mperea9/PathfindingVisualizer>

September 2019

- Created a pathfinding visualizer that displays how the A\* Search Algorithm works in real time as it runs.
- An extension of Dijkstra's algorithm with Breadth-First characteristics, the A\* search introduces a heuristic into a regular graph-searching algorithm, essentially planning ahead at each step so a more optimal decision is made, making it one of the more efficient methods in pathfinding and graph traversal..
- Implemented using Python and modified using Visual Studio Code.

**Student Project: Grocery Inventory Database** - <https://github.com/mperea9/GrocerySQL>

December 2020

- Constructed a grocery store management system that allowed users to add/remove store items while being given full and total prices amongst checkout. Orders and products received their own personal IDs within the backend server and database. Also helped students understand the basic concepts of how businesses run and the different kinds of services that can be used within the system.
- Described as a 3-Tier application (UI, Backend, Database). Technologies: Database being MySQL, the backend being Python on a Flask server, and the front-end being a simple HTML, CSS web-page.

## Additional Experience:

**University of Colorado: Boulder, CO** - *OIT Student Software Support Analyst*

August 2017 - May 2020

- Guided students and faculty with software and hardware support across campus. Using Excel, recorded and analyzed technical problems around campus to provide for upper management.
- Expanded help via programming and running internal systems involving the projectors and work stations for professors around the campus. Technical tools included Extron systems and Lectern connectivity.

**Corden Pharma: Boulder, CO** - *IT Intern*

July 2019 - September 2019

- Configured and validated secure systems and physical controls, responsive service management to IT global/local systems and general maintenance of site systems to detect security, process, and/or data integrity weaknesses.