

# ***Parking Convenience***

New Mexico Supercomputing Challenge Final

Report

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## Introduction

We created this program with the intention of remarkably simplifying parking and making it less stressful for drivers. As drivers ourselves we wanted to create a program or even an app to provide a simpler experience while within parking lots. Based on our research provided at the initial conference we were able to understand parking lots in a computational way. This was due to another system model of a parking lot. From there we were able to draft out own code to basically simulate our planned app. While we did not fully achieve our goals we hope to build upon what we learned to complete our goals for our senior year.

## Materials and Methods

We tried programming in Java first, but scrapped the idea and switched with Netlogo. We then used Netlogo to program a model of how our idea would work. We also used open maps and API to help make the model. We split up the work but still worked together and helped each other.

## Results

We did not get the results we desired because are program was very complicated and we could not make much headway. We were able to make a basic rough draft of our program but we did not succeed in completing it. We hope to compete next year and continue our project so we can complete it. We want to create an actual app or platform where the user can easily interact with it and be able to use it. We would like to see the actual app receive inputs of location and display where other cars are in the parking lot. We would also like to be able to use it in any parking lot with the use of mapping.

### Conclusion

We were not able to get as far as we wanted to, but we plan on completing it in next year's competition. We would like to see our idea become an actual app which works. We were able to get a better grasp of the subject, but we need more time to complete it.

### Personal Statement

We created this program because many people, including us, have trouble parking. Sometimes it takes forever just to find a parking spot, we wanted to make it more convenient and easy. Also a lot of crashes occur in the parking lot, we have a friend who has been in four car accidents, and three of them were in parking lots. Parking can be hazardous because many people are careless and lazy, we hoped to make it simple, quick, safe, and easy.

### Acknowledgements

Our mentor, Matthew Hoppe, helped us brainstorm ideas and develop a plan to get this program done. Our teacher, Mrs. Curry, made time to help us work on our program and set goals to help us gain progress on our program. Phillip also presented our project to a board at NMSU and they gave us advice on where to go from there.

### Works cited

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Open Street maps API

Various notes from professors and mentors