

A Chance to Work

Understanding the composition of foreign workers pursuing specialty occupations on the United States

H1-B visa

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1 INTRODUCTION

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2 RELATED WORK

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3 PROPOSED METHOD

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4 EXPERIMENTS AND EVALUATION

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5 CONCLUSION

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A TIMELINES

A.1 Current timeline

- November 13: Database, backend, and frontend connected and communicating
- November 20: Application functioning on small dataset
- November 24: Poster design complete
- November 27: Application polished and presentable for poster presentations
- November 30: Poster presentation, full dataset uploaded
- December 4: Final report complete

A.2 Previous timeline

- October 23: Able to query locations from front-end, all data added to database
- November 6: Simple path generated and displayed based on user-provided start and end points
- November 10: Progress report due
- November 20: User can select options to impact path generation, continue to refine algorithm and front-end
- November 28: Poster presentation
- December 5: Project complete, final report due

B WORK DISTRIBUTION

- Scraping and collecting data, geocaching (Alex)
- Cleaning and standardizing data (Chuanqi)
- Designing our algorithm (Qinrui)
- Implementing the backend (Tianshu)
- Creating the front-end (Tianyu)

All team members have contributed similar amount of effort.

C INNOVATIONS

- Incorporating trail quality data
- Using Tarjan's algorithm to generate paths
- Scraping and providing points of interest specifically geared towards bikers and hikers

Further possible innovations we would like to implement if we have time:

- Hikers can update trails and give feedback
- One can edit the trail he wants to follow directly in the interface (by drag and drop for example)
- One can export the trail to a gps thanks to a gpx file

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