

### Abstract

This poster will describe the internship experience at Clarity Products LLC. It will inform future potential interns of what the internship and company are like. The poster will describe the tasks and technologies that were utilized during the internship.

### Captionmate App

Clarity makes an app called CaptionMate that does closed captions for phone calls. The CaptionMate app allows for anyone with a hearing impairment to access closed captions on both sides of a phone call on Android, IOS, web, and landlines. It allows people to quickly have phone conversations because it uses AI to recognize speech rather than a captionist. By improving the marketing of the app, more interested users will be aware of the app and try it.

### Introduction

During the internship, a website was made to visualize metrics that are collected on users such as calls made, minutes used, time active, region, age, theme, font, and platform used. Bar charts are used to show minutes and calls used on days of the week. 100% bar charts are used to show how much a day contributes to the usage of the app; a user contributes to minutes, calls and platform usage; and show calls incoming vs. outgoing. Line graphs were created to show growth in app usage and number of new users over time. All the data is displayed in tables too.

### Future Career Plans

After this internship and college, I plan to go into data science. I am interested in doing data science at a technology or healthcare company, I plan to apply for more data science internships to gain experience in that field. This experience will hopefully make it easier to find other jobs and internships. I will also continue going to networking events to connect with companies I am interested in. I believe this internship will open up many opportunities for a future career.



### Results

#### The Job

The front page shows successful calls, unsuccessful calls, minutes, active users, new users and average call satisfaction for the previous day. There is a page that keeps track of the total minutes and calls that have been used for each day throughout the lifetime of the app. The top ten users page finds top users based on metrics such as IOS; droid; web; minutes in, out, and total; calls in, out, and total; most calls; and longest call length. 100% bar charts were created to show how much each of the top ten users contributed to these metrics.

Bar charts were made to show total number of calls and minutes in and out; number of not billable reasons; and theme and font size usage. Line charts were created to show the number of calls minutes, and users each day. A records page was created to show the days with the most calls and minutes in, out and total. It also keeps track of the minutes and calls of the top active users. The average age, number of IOS uses, web uses, and droid uses of users overall, by theme, platform and region is kept track of in a user profile page. The monthly goals for minutes and calls are found based on the previous months of minutes and calls. Finally, the new users page tracks profiles of the new users. It tracks minutes, calls, and platform used by users that signed up the past day.

#### Highlights

- Internship lasted from January 2021 to May 2021
- Design and programmed app using Visual Studio with C#
- Used SQL server to get data for tables and visualizations
  - Stored procedures retrieve appropriate data when the webpages are loaded
- The right type of graph for the data was determined
  - Bar charts were used to display counts my categories such as theme, and day of the week.
  - 100% bar charts were used to show the percent a category contributed to the total such as some weekdays contributed more minutes and calls than other weekdays. Calls in vs. calls out were also shown in this way
  - Line charts were used to show growth over time such as active users, new users, minutes, and calls
- A needs assessment was conducted every week
  - Skype and email were used to communicate
  - Website progress was discussed
  - Suggested changes and new feature requests were made every week

#### Experience

This internship helped me figure out that I want to do something related to data science, making visualizations, and web development. The experience has helped me improve my web development, data science and communication skills. I have been exposed to new technologies such as .NET Core and improved my knowledge of others such as HTML/CSS, JavaScript, and SQL. I think a software engineering internship such as the one at Clarity Products LLC can give people exposure to new technology and help them improve upon their skills.

#### Preparedness

Programming 1 and 2, Database Systems, Computer Applications of Statistics, and Data Mining all helped prepare for this internship.

### Conclusions

The internship has helped me gain valuable experience in data science and web development. It has helped me determine what I want to do as a future career and improve my existing skills. Overall, it was an enjoyable experience working for Clarity Products LLC. I feel that my data visualization skills have improved immensely. I know when to use what graphs and sometimes multiple graphs can be used to get a point across.

### Acknowledgments

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### References

<https://clarityproducts.com/>

<https://www.captionmate.com/>