Reed Log

A Study of Oboe Reeds

Purpose

The purpose of this study is to collect data on reeds from multiple different sources, and analyze using Machine Learning algorithms. For this purpose, I have created the Reed Log app, that stores the participant's reed information, and allows the participant to easily share the data.

I will use the data to analyze objective reed specifications (like tools or machine use in the making reeds, or measurements of the cane) in conjunction with subjective experiences with the reed (saved within the reed questionnaire).

The goals for this study are to find reed specifications that maximize reed success for specific players, as well as between players overall. I will also look for other connections between the choice of tools or cane measurements, and the questionnaire data provided. I hope to both confirm known connections, but I hope to find new correlations as well.

Download Instructions

To get the app you need to have an Apple device, preferably an IPhone. The app is also available on an and an IPad, but the app performs best on an IPhone.

Links

Here is a set of links for use in this study:

Download the app here:

Submit the data here:
https://docs.google.com/forms/d/e/1FAIpQLSdbussbA6dYOW6NT92OFYsmsgufZmReKY1GGPpE54U8odo19g/viewform

Contact Information

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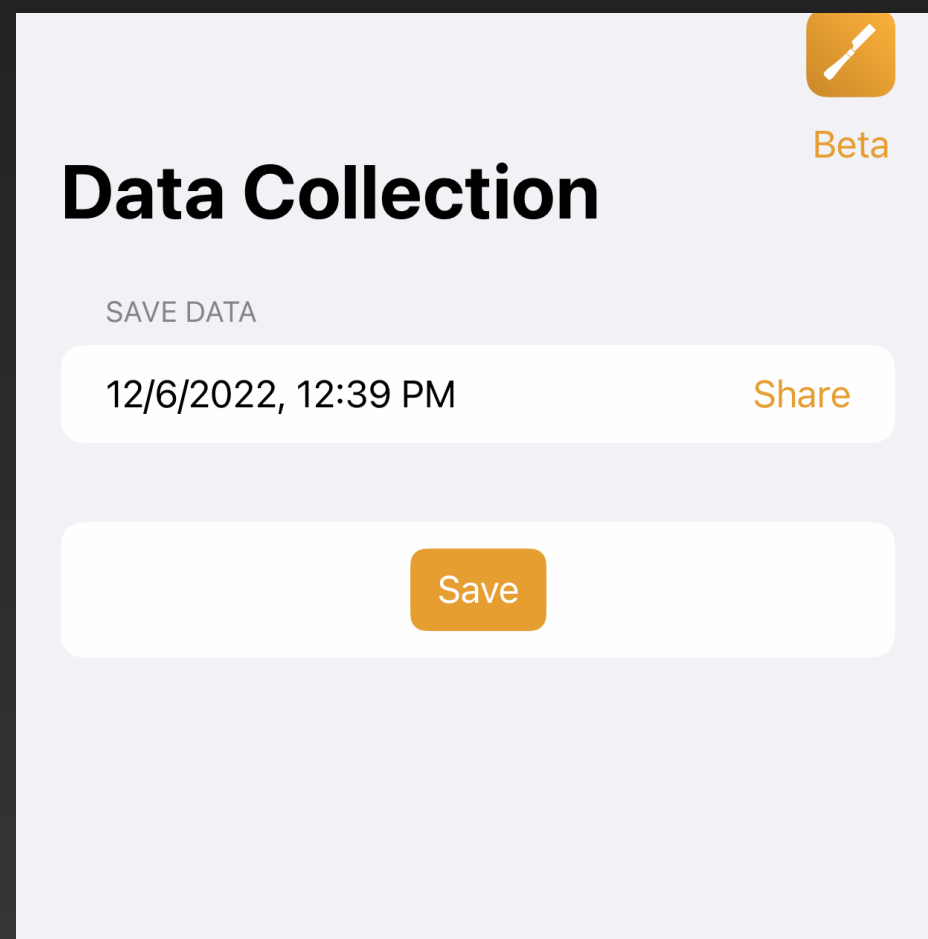**Github Page**: https://github.com/Michalcieslik1/Senior-Project
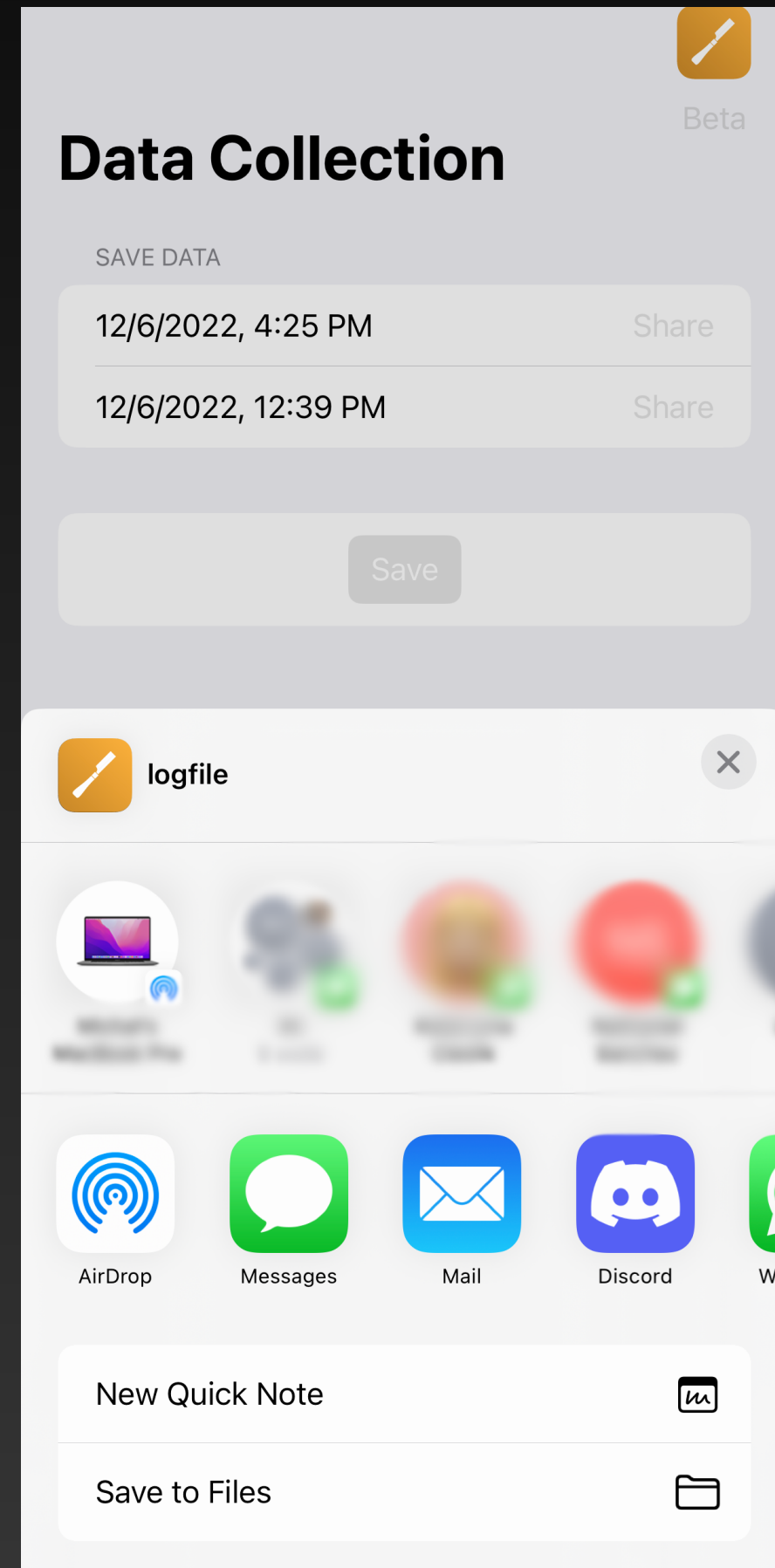
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General User Guide

Data Collection

As a participant, you will be expected to use the application regularly, and periodically upload the resulting save data to the Google Form linked within the application.

To retrieve data from the app, go to the **Data Collection** tab, and press **Save** (Screenshot 1). Afterwards, press **Share**, and save the file somewhere you can find it (Screenshot 2).
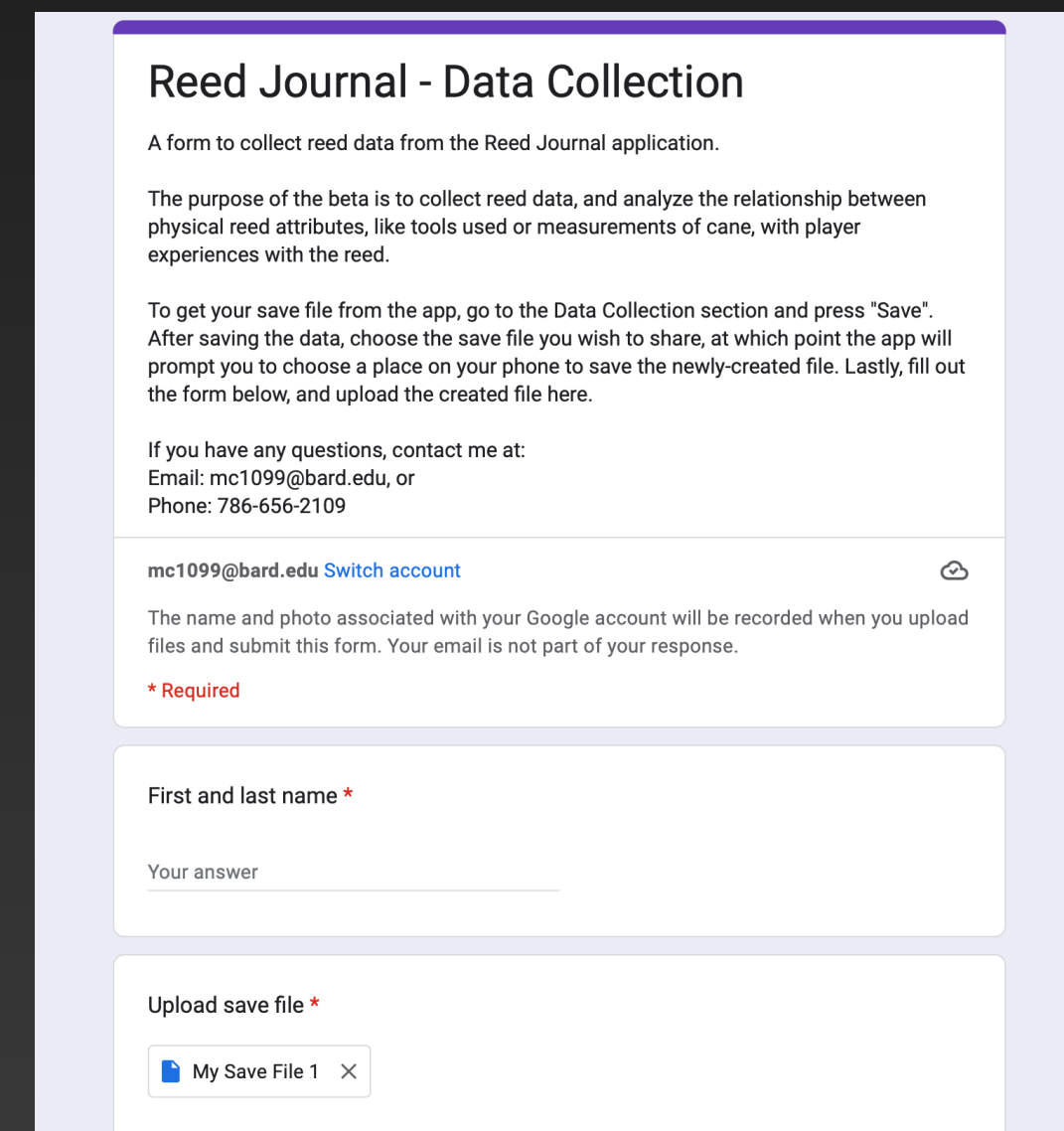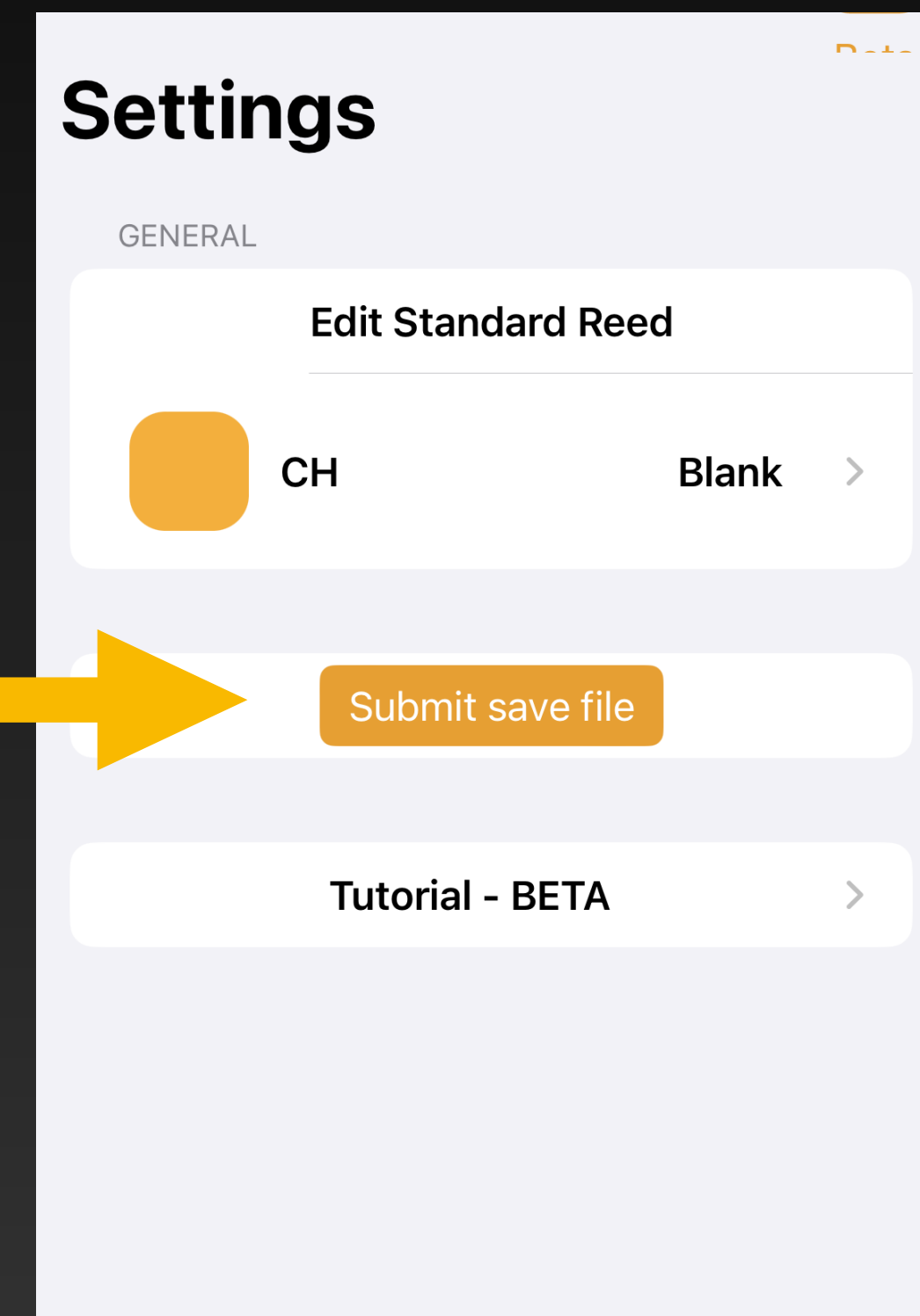
To submit the data collected, go into the **Settings** screen on the app (located on the bottom right tab of the app), and press **Submit save file** (Screenshot 4). The button will redirect you to a Google Form, which will allow you to submit your response.

If there are any issues with the submission of the data, please contact me, or send the data through email.

Data Collection

SAVE DATA

12/6/2022, 4:25 PM   Share

12/6/2022, 12:39 PM   Share

Save

logfile   ✕

AirDrop   Messages   Mail   Discord   Wh

New Quick Note

Save to Files

Screenshot 2

Data Collection

Beta

SAVE DATA

12/6/2022, 12:39 PM   Share

Save

Screenshot 1

Reed Journal - Data Collection

A form to collect reed data from the Reed Journal application.

The purpose of the beta is to collect reed data, and analyze the relationship between physical reed attributes, like tools used or measurements of cane, with player experiences with the reed.

To get your save file from the app, go to the Data Collection section and press "Save". After saving the data, choose the save file you wish to share, at which point the app will prompt you to choose a place on your phone to save the newly-created file. Lastly, fill out the form below, and upload the created file here.

If you have any questions, contact me at:
Email: mc1099@bard.edu, or
Phone: 786-656-2109

mc1099@bard.edu Switch account

The name and photo associated with your Google account will be recorded when you upload files and submit this form. Your email is not part of your response.

* Required

First and last name *

Your answer

Upload save file *

📄 My Save File 1 ✕

Screenshot 3

Settings

GENERAL

Edit Standard Reed

CH   Blank ›

Submit save file

Tutorial - BETA   ›

Screenshot 4

Reed Log

General User Guide

App Functionality

◎ Adding Reeds & Reed Boxes

To add a reed, press the **Add Reed** button on the bottom of the main screen, or within a specific reed box's screen. If the reed is labeled as a **Blank**, only the basic information about the reed will be requested. Otherwise, a **Questionnaire** section will be displayed, asking you to fill out information about the subjective experiences with the reed. After finishing filling out the information, remember to press **Save**.

You can add a reed box by pressing the big **+** symbol at the end of the list of reed boxes. After filling out the information on both screens, press **Save**

◎ Editing Reeds and Reed Boxes

To edit a reed, open the reed, and press the **edit** button in the top right corner. After finishing the editing process, remember to press save at the bottom to make sure your progress is actually saved.

◎ Reed Presets

To make entering reeds easy, the app allows the user to create a **standard reed** in the settings screen. To do so, open the **Settings** screen located on the bottom right tab, and press on the reed under the **Edit Standard Reed** tab. You can then set the standard information you wish to be entered when creating new reeds to speed up the process.

Parameters Collected

Not all parameters are going to be used for the purpose of the study. These include the staple ID, as well as thread color. The following parameters will be analyzed, and are defined as follows

◎ Cane Parameters

Cane type should include the brand of the cane, similarly to **cane shape** as well as **gouge**. **Cane diameter** should be entered as a number only, with no extra symbols. **Cane measurements** should be measured with a micrometer at the middle of the piece of cane, under each ears, as well as in the middle of the end of the piece of cane. These measurements are an important part of the study, so please put measurements that are as accurate as possible. If no measurements are available for an entered reed, please leave the fields at 0.

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◎ Tying Information

The only key parameters in this section are **staple type**, and **tie length**. The staple type should specify the brand of the staple used.

◎ Questionnaire

Both **reed success** as well as **reed loudness** are set on a scale from 1 to 10. While it is impossible to specify exact and objective criteria of what constitutes a successful reed, the general guidelines for reed success should define reeds below 5 as unsuccessful, and reeds above 8 as exceptionally successful. Reeds with loudness rating under 5 should be defined as reeds not suitable for orchestra performance, and anything above a 5 as reeds suitable for orchestra

The **pitch floor** references the lowest possible pitch of the peep while keeping the lips in a playing embouchure in regards to concert C. The 5-step scale should be interpreted as the lowest being a peep significantly below a C, and the highest being significantly above a C, making the reed unusable. The **in tune** option should be only chosen if a reed peeps perfectly at a C at any volume, with no support from your lips.

Similarly to the **pitch floor**, the **opening size**'s 5-step scale should be interpreted as follows: both extremes of the spectrum should describe reeds with unusably small and unusably large openings, while the middle step should only be used if no fight with the opening during the reed making process was experienced.

The tone signifiers should be defined as follows: **ring** describes the tone's sweetness, the opposite of ringing being defined as dull. The option should be left unchecked only if the reed is too dull for one's personal liking. Conversely, the **depth** signifier specifically references the A to G test as defined in the book *"Understanding the Oboe Reed"*. In more general terms, depth references whether the reed vibrates as one thing, with the opposite of deep being defined as shallow.

Thank you for your participation!