Final Stuff To Do For Presentation

- ☐ Demo recording (Sanjana)
- ☐ Narration write-ups
    - ☐ AI model + evaluation (Katie/Asmita)
    - ☐ Story/problem write-up (Rachel)
    - ☐ Market write-up (Monishka)
    - ☐ Integrate competition analysis into problem/solution section (Monishka)
    - ☐ Closing statement (a couple sentences) (Monishka)
    - ☐ Cut down timeline section
        - ☐ Divide into our development cycle (future?)and feature timelines
    - ☐ Edit and finalize write-ups (last) – put into separate document
- ☐ Slides
    - ☐ Mission/problem slide
    - ☐ Data graphic
    - ☐ Split final AI model slide and add example
    - ☐ Demo slide
        - ☐ Find icons/logos for technologies used (sanjana)
    - ☐ Model evaluation slide (Katie/Asmita)
    - ☐ Colour-code timeline slide for development (internal) and features
    - ☐ Finish team/thanks slide (Rachel)

To-do for Presentation

Note: how are we getting data for canada
Product roadmap
Can have in take form
Take about size of data(num of rows)
Make map of ny and boroughs
Add the technologies that were used next to demo slide
Explainability helps us and the user understand

- ☑ ~~Fill out our section in Summary of Projects sheet~~
- ☐ Pitch research
    - ☑ ~~Previous presentations~~
    - ☐ Stats for presentation
    - ☐ Competition research/condensing
- ☐ Presentation framework
    - ☐ Time breakdown
    - ☐ Details for each section
- ☐ Presentation
    - ☐ Narration write-ups
    - ☐ Slides

- [x] ~~Title slide~~
- [ ] Introduce problem slide
- [ ] Solution slides
    - [x] ~~Dataset slide~~
    - [x] ~~AI model~~
    - [ ] App demo
- [ ] Market slide
- [ ] Competition slide
- [ ] Impact model slide?
- [x] ~~Timeline/future plans slide~~
- [ ] Team/closing slide

- [ ] Demo recording

Pitch Time Breakdown

Pitch Component	Time	Details	Team Member
Problem and solution	**2 min**	Personal story (30s) Business problem (30s) Solution (product) (1min)	Rachel
Market	**1 min**	Who wants this?	
Competition	**1 min**	Who is out there and how we compare	
Business model	**1 min**	How this impacts society	
Traction	**1 min**	How far we came, how we progressed	
Timeline	**1 min**	Our short term(more data organization + better user experience) and long term goals(get more data + more location+more features + volunteer) with our product	
Team slide	**30 sec**	Team picture + Thank you	
Close	**30 sec**	How would this change the world	

Pitch Sections Details

See detailed narration in section “Pitch Narration”

Problem and solution

- Present the personal story

    - Can't find anything in smaller areas → probably missing some in urban areas as well
    - Takes a lot of time filtering through manually to find something
- Present the problem
    - Difficult to find options → less volunteering, less community involvement, fewer resources for organizations trying to help the community
- Present the solution: our product
    - Present app and dataset
    - Explain AI model (slide)
    - Demo (screen-recording)

Market

- Most people need to volunteer at some point in their life for school/jobs
    - Volunteer hours needed to graduate in most provinces (not AB, SK, NB)
        - https://www.cbc.ca/news/canada/high-school-volunteering-as-some-struggle-to-secure-hours-others-raise-bar-1.3201991#where
    - Good for college applications
- Lots of people already volunteer
    - 79% of Canadians volunteered their time in 2018
        - https://www150.statcan.gc.ca/n1/daily-quotidien/210423/dq210423a-eng.htm
    - 52.8% of residents of NYC volunteered in 2019
        - https://www.nycservice.org/liberty/download/file/6972
- Mainly aimed at people already looking for specific volunteering opportunities

Competition

- What are other people in this field doing? (other volunteer finder apps)
    - Lots of large volunteer organizations have search features
    - Investigated services like VolunteerMatch, GiveGab, Catchfire, Volunteer Canada, etc.
    - Mostly just filtering – not personalized
    - Missing lots of smaller organizations, especially in smaller/rural places
- How are we different?
    - Exposure to all organizations through census data
        - Especially useful when applied to rural areas
    - Use AI to personalize the experience to the user
    - Explainability feature

Business (impact) model

- What would the impact of our product be?
    - Make volunteering easier, streamline searching process
    - Open up all volunteer opportunities to anyone who might be interested
        - Getting opportunities aligned to your interests ⇒ more positive experience with volunteering ⇒ more likely to engage more

    - Volunteering is good for you
        - Connects you to others, good for mind and body, can advance your career, brings fun and fulfillment to your life https://www.wcsu.edu/community-engagement/benefits-of-volunteering/#:~:text=Volunteering%20keeps%20you%20in%20regular,and%20reduce%20stress%20and%20anxiety.
    - Give more exposure to all organizations, particularly those with fewer resources

Traction
(probably will take this out)
- How close of a match can we get?
- What data do we have?

Timeline
Short-term: make user experience better for the data we already have
- Automate collection of data for organization profiles
- Add better contact to organization
- Use feedback to re-train model and make better recommendations

Long-term: expand to more features and more locations
- Expand to other locations (into Canada, for example)
- Dashboard with events related to organizations (more specific advertising)
- Centralize contact between organizations and volunteers
    - Allow them to create a profile (resume, criminal record check, etc.) that they can send to organizations once (kinda like LinkedIn for volunteering)

Team slide
- Need headshots from everyone (including Nastaran)
- Thank the lab and our mentors

Close
- How would the world change for the better if everyone used this product?
    - Over time more volunteering ⇒ better community engagement, more communal mindset esp. in young people ⇒ society better equipped to attack issues of the day

Pitch Research

Previous presentations
https://www.youtube.com/watch?v=FrMWoXn0BYw&t=1324s

Soquo

Presentation: (8 min)

- Greeting (quick)
- Explain where the presentation will go
- Start with the problem
    - Stats
    - Personal story → fabricated character
    - Used personal story to introduce nuances of problem, facts (studies)
- Introduce the solution
    - Short things on slide, elaborate in narration
    - Worked market into solution
- Explain solution
    - How does it work? (high level and lower level)
        - Diagram for machine learning → lay language to explain in simpler terms
    - What did we try?
    - Results (metrics)
    - How this works for user → Figma demo
    - Transparency
        - Show how predictions work
- Explain what is still to do
- Competition
    - “May seem similar to…”
    - Explain how their product is different
- Impact
    - How will this affect the user?
    - Imagine how it would change if
- Future vision
    - Where they hope to go
    - What they would need to do it
- Close/conclusion
    - Reiterate why you need it, how it will help
- Team slide/thank yous
    - Names of team members
    - Thanks to organizations and TA’s

Notes:

- Not too many words on slides
    - Put small phrases on slides that were included in larger sentences in narration → makes it easier to keep track of where you are in the presentation
- Neat and simple slides
    - Clean with related colours
    - Small icons/photos to illustrate point
    - Diagram for AI slide → easy to understand
- Didn’t necessarily split the narration by discrete section
    - Good connection and flow, natural segues between sections

        - No disruption when they switched from one person to another to narrate
            - Didn't acknowledge that they were switching
- Screen recording for demo
    - Talked over the demo to explain user experience – really oriented the explanation to the user experience → effective
    - Didn't spend a ton of time on that

<u>N(A)RRAT(I)VE</u>

Presentation: (9 min)

- Greeting
- Relate it to the audience immediately
    - "Here's an experience you probably have had"
- Present data exploration
- Problem
- Explore dataset
    - Explain which dataset, how they used it
- Solution/progress
    - Explain how the AI model works (diagram)
    - Include data processing in model explanation
    - More detailed explanation of AI model parts after high-level model
    - Talked about explainability/interpretability
    - Metrics
- Demo
    - Explained each feature
    - Tour of application
    - Screen recording with recorded narration
- Future work
    - Presenting risk considerations and difficulties
    - Where would we go in the future?
    - Lots of details
- Market
    - Who it could help and how it could help them
    - Who/what it's *not* for
- Competition
    - What the competition is missing
- Conclusion/close/thanks
    - "We think this is a good product"
    - Thanks to organizations

Notes:

- Not fully clear from the start what their product is or what it's for
- Few narrators
    - Acknowledged when they switched between narrators → disruption

    - Didn't go back and forth, just one person for beginning, other for middle, other for end
- Spent a lot of time on the AI model and went into a lot of detail
- Didn't relate it to the user
    - Lacking in emotional connection
- Attractive slides, fairly minimal but still too many words
    - Short phrases didn't do a good job of conveying general idea

<u>Physifeedback</u>

Presentation: (12 min)

- Greeting/introduction (15 s)
    - Present intent in one sentence
- Immediately relate to audience (30 s)
    - "Thumbs up in the chat" → adapting to online environment
    - Describe a scenario
- Market/reach (30 s)
    - Who will use this? How common is it?
    - Diagram based on stats
    - Why is this useful?
- Problem (1 min)
    - Stats from a study they did
    - Got info about what the users want
- Competition (1 min)
    - Comparative diagram → obviously did their research well on the competition survey
    - Compares competition to their own product (based on different features)
- Team slide (30 s)
    - With qualifications (degrees)
- Solution (2 min)
    - Confusing graphic
    - Explain what the AI does
    - Explain how it will be useful
    - Explain their approach
        - Research
        - Data collection/vetting/processing
        - AI model
- Demo: (1.5 min)
    - Screen recording with live narration
    - Showed app working for a user (one of the team)
- Vision/future plans (3 min)
    - What do we want to do next?
    - Build on current features
    - Keep bringing it back to how the user will use it
    - Timeline diagram for progressing
        - Short-term and long-term goals

    - Predicted challenges
- Conclusion/close (30 s)
    - Link to demo to try it out
    - Thanks to supporters

Notes:

- Three narrators
    - No acknowledgement of switch
    - Still felt a bit choppy somehow – might have been partially due to connectivity issues during one person's part
- Slides felt kind of busy and the colour scheme was a bit aggressive
- Really cool idea and they obviously knew a lot about what they were talking about
- Good relating to audience at the start
- It took a while to get to their solution
    - Talked about competition first → confusion, hard to compare when you don't even really know what you're talking about yet
    - Market before problem was a bit strange
- Impressive demo - screen recording with live narration was effective
    - Means you don't have all the team members as passive participants in the presentation at once

<u>Condensed Presentation Notes</u>

What worked

- Simple slides w/o too much info
    - Flow diagram for AI model
- Diagrams that are easy to understand in a few seconds
- Switching narrators seamlessly
    - Don't acknowledge that you're switching
    - Segue cleanly between topics/sections (so it feels natural)
- Speak clearly and slowly but not robotically – practice!!
    - Talk like you actually care about what you're doing
    - Get people to talk about the parts they understand
- Relate demo to user experience - tell a story
- Prerecorded demo with live narration
    - Talk in general terms – don't describe demo exactly
    - Tell user story
- Present problem and solution first and then present competition/other details

What didn't

- Confusing diagrams or too many words on the slide
- Acknowledging when switching between narrators
- Having one narrator talk for too long → disjointed
    - Either have one person say everything or switch more often
- Impersonal demo that's more like a tour of features

- Prerecorded narration over screen recording for demo
    - Feels like the presenting team is also just part of the audience → awkward

Pitch Narration

Notes

- ~150 words per minute of speech

Narration

Problem + Personal story (include ***Mission statement) [SLIDE 1,2]

Slide 1:

Good afternoon, we are the Focus team and we are excited to present our project, a volunteer connections app.

Volunteering is invaluable. It allows non-profit organizations to provide important services, and it's a great way for people to get involved with their communities, stay healthy, and feel fulfilled.

Slide 2: However, finding volunteer opportunities can be challenging. Most people in Canada will volunteer in a given year, but existing systems to find opportunities are difficult to navigate, impersonal, and time-consuming. Many organizations are missing from their lists, especially in rural areas. Searching multiple sites to find something that may interest you can be frustrating, and it's hard not to think, "is it really worth it?"

Slide 3:

Our solution is Focus, a geoaware, explainable AI recommendation service that analyzes your interests to present you with the volunteer opportunities that are most likely to suit *you*. Unlike other services, it is personalized to each volunteer and gives you all of your options.

Data Pre-processing [SLIDE 3]

Slide 4: Due to access constraints of Canadian datasets, we prototyped our AI model on a New York City volunteer organizations dataset. Granted access, we will adapt our AI model to suit Canadian volunteers.

We used a dataset of 544 volunteer organisations in New York City. This is a NY Service open source dataset. The Organization's name, age range of their maximum volunteers, Borough location and interest areas were the primary attributes of this dataset.

Based on population and age demographics as well as statical data from the NYC regions, our team produced a user dataset of 200 users. Our user dataset's features included the user's age, borough, bio, and first, second, and third priority from the former when considering a volunteer organization.

Solution + Demo + AI model(ai team) [SLIDE 4,5,6,7,8,9]

Slide 5: For our AI model, we used a natural language processing model, spaCy, which is pretrained in the English language to convert the user's inputted sentences and the organization's category into tokens or keywords. We passed that into spaCy to help us get the user and organization vector. After obtaining a sentence vector for both, we conducted a cosine similarity calculation which results in a similarity score based solely on the interests.

Slide 6 Moreover, for age and location, we calculated a similarity score for each by comparing the age and distance of the user against the organizations by using mathematical operations.

Slide 7 Finally bringing everything together, based on the user's preferences, we are able to provide the user with their top recommendations based on a weighted calculation done by our AI Model **Slide 8** which takes into consideration the similarity scores for interest, age, and location.

Slide 9 So essentially, we compute a similarity score for each feature with inputs from our user and organization, send that into a weight calculation according to the user's preference, and we will be able to generate the top 5 recommended organizations for our user

Slide 10 DEMO + tech stack→ Sanjana
Now we'll move on to the demo.

Slide 11 AI Model evaluation: → Asmita
Now moving on to the evaluation process for our AI Model. As established before, Due to lack of volunteer user data, we decided to fabricate it using real statistical data. Here in this example, using an entry from the user dataset, we can see that Selena's interests are dedicated to social services, advocacy and justice here and the organization recommended thru our AI model also focuses on people w disabilities...

it is evident that the dedicated areas of the organization align closely with the user interest.

In this way, our ai model was analyzed and verified by our team to pass the accuracy test. Moreover, Since our AI model is based on NLP, which is already pre-trained in multiple languages, we know that our AI model will be able to adapt to different languages as well.Along the way, we intend to use the user feedback, as Sanjana mentioned to improve the robustness of our model.

Roadmaps/Timelines X2: → Monishka

Slide 12: Project Timeline:

- First we gathered data and once data was finalized we brainstormed possible Machine Learning techniques such as collaborative filtering and TF-IDF
- However, for these techniques there was a lack of interaction between the user and organization data (known as a cold start problem)
- Next we looked at web scraping to match the user's interests to organizations however this had some privacy concern issues and wasn't feasible.
- Finally, we decided to use a NLP approach to most accurately find similarities between the user and the organizations

NEXT SLIDE

Future Enhancements:

Slide 13: Our future plans for the product include:

- Automating collection of data for organization profiles to reduce time gathering data about organizations
- Next, we want to connect the user and organizations directly so it's much more centralized and convenient for the user.
- We would then be training our AI model from the feedback collected to make accurate recommendations
- We also look forward to expanding geographically in parts of canada
- Lastly, add-on features like an upcoming events tab are continually being explored

Slide 14 Close + Thank you

Volunteering is essential for community growth as it promotes healthier engagement within society and can tackle many existing societal issues.

Thank you very much for listening. It was a pleasure to be a part of this program and we would like to thank our TA, our Mentors Bahar Sateli and Daniel Toyama, and the entire team at the AI4Good lab who made this experience possible.

Thank you once again.

Volunteering is essential for community growth as it promotes healthier engagement within society and contributes immensely to a communal growth mindset which can tackle existing societal issues.

Since we were limited by the data and time available to us there were certain features we could not include but would be very much interested in incorporating into our application.

- Firstly, We would like to automate collection of data for organization profiles so that its less time consuming and we can gather data from as many organizations as possible
- Next, Providing direct contact to the organizations through the web app to reduce the time needed for navigating the separate websites

- We also hope to use feedback to re-train the AI recommendation model to make more accurate recommendations each time based on the user's previous engagement with our product
- We would like to expand demographically in all parts of Canada. Especially implementing a french NLP model is a goal we hope to pursue for users in Canada.
- Recommend volunteer position and provident the ability to apply through our platform
- Lastly in the future we do hope to turn our website into a mobile application to there is easier storage of information for the user

- TF-IDF was another candidate but since it wouldn't work with binary values the user's bio would not be analyzed correctly. E.g mentioning dog 100 times vs 1 time would have had the same effect on the model

Market

In July 2021, it was reported that 74% of Canadians volunteer informally. This suggests the vast market that exists and potential for growth in the future. Individuals of various age demographics such as students, adults and older adults will find our product of use and benefit from our AI solution.

Competition

- There exist similar applications in the market that allow users to explore volunteer opportunities in their nearby regions. However, most of these applications use a simple filtering algorithm to list organizations. Focus was created to personalize the volunteering search to make it more efficient. By using an AI algorithm to recommend organizations based on the user's interests, age group, and location, Focus presents the user with opportunities that are more likely to be personally fulfilling experiences. Other

applications also require the organizations to post their own information. Focus cuts out that step by using government survey data, making sure that a volunteer using our site is presented with all of their options.

- *Similar applications use a simple filtering algorithm to list organizations whereas Focus personalizes the search by collecting relevant user data of interests, age, and location to present them with the organizations that best fit their interest. Additionally, we highly value transparency and trust with our users, which is why we are extremely proud of our explainability feature that clearly explains to the user how their data is being used to provide recommendation.*

Business (impact) model

Focus aims to streamline the volunteer search so that it is easier for potential volunteers to get engaged in their communities, making a difference in an area they care about. At a time when more and more people are suffering from isolation and disconnection, volunteering can help people get involved in their communities. Volunteering is good for you: it can decrease loneliness, keep you healthy mentally and physically, teach you new things, advance your career, and bring fun and fulfillment to your life. Volunteer organizations do invaluable work in their communities across many fields, and Focus can help them conserve their resources and increase their workforces by doing the advertising for them. Focus could increase volunteering rates and volunteer satisfaction by giving people the opportunity to offer their skills and time with organizations that reflect their own interests.

Ti\meline

Initial plan: While researching for this project, we understood the limitation of data that was available to us and so we created a model that would be implemented based on the current data and resources available to us and once we had a concrete solution it would easily be translated to achieve our short and long term goals:

Our Short-term goal is to improve the user experience with the current data. This will be achieved by:
Its hard to get user data by scraping

- Automating collection of data for organization profiles so that its less time consuming and we can gather data from as many organizations as possible
- Providing direct contact to the organizations through the web app
- Use feedback to re-train the AI recommendation model to make more accurate recommendations each time the user is looking for opportunities. This way, they are provided with much more personal recommendations based on their previous engagement with our product

Our long term goals are to expand geographically and incorporate more advanced features

- We want to further our reach in various geographical regions such as Canada.
- We hope to add a Dashboard feature that presents the user with events related to organizations matching their interest. This also translate into to more specific advertising for organizations based on their engagement within the community
- Eventually, we also hope to centralize contact between organizations and volunteers by allowing them to create profiles where they can upload their resume, criminal record check, answer any question and much much all at once. Like a Linkedin for volunteering, this would make the application process much more streamlined and convenient.

Close

Our vision for transforming the volunteering experience has driven us to pursue this project and as we researched more about this topic, it became clear to us that volunteering is essential for community growth as it promotes healthier engagement within society and contributes immensely to a communal growth mindset which can tackle existing societal issues.

Team Slide and thank you

Thank you very much for listening. It was a pleasure to be a part of this program and we would like to thank our TA, our Mentors Bahar Sateli and Daniel Toyama, and the entire team at the AI4Good lab who made this experience possible.

Thank you once again.

Project Summary

Submitted to Summary of Projects sheet

FocUS brings exposure to smaller volunteer organizations in order to give equal recognition and opportunity to volunteers across Canada through an AI driven recommendation model.

Mission Statement

We are focUS, a team committed to implementing A.I. to create a time-efficient solution that helps you find your next volunteering endeavor.

Presentation Layout

Greeting, team name/intro

Problem/solution

- Business problem
- Solution design
- Competition/differentiator
    - Explainability
    - Having all organizations
    - Personalized, “geoaware” model
- Data
- AI model
- Demo
- Evaluation of AI model

Future plans

- What we’ll do in the future
- Closing remarks

Team/thank you slide