

Intro

• potential ideas:

↳ • artificial pancreas

• bioinformatics - genes

• AI? - AQI

• lung capacity

↳ • need human trials (ethics?)

• quick releasing drugs - create stomach acid?

Try to get ethics done by Feb 4th

02/04/25

Project

- most likely bioinformatics: (Project web)
 - ↳ • 3-2 different diseases,
discover some mutations
that lead to disease
how mutation comes to be
(heredity, environment)
- how mutation is seen and
affects day to day life
- Ask Madelon how to
execute project.

★ Try to get other done by
Feb 5th!!!

02/08/21

Project

- AI predicting AQI
 - ↳ • get ethics done soon!
 - ↳ • use sentenceembedder model to predict AQI around world, see how AI can advance and and, wild ideas are other applications

02/06/25

AI to Predict AQI

- get others done, start project soon.
- find data, key research points to start
- who, what, where, when, why, how move

~~START SOON~~

02/28/25

Using AQI to Predict AQI

potential questions:

↳ What is AQI

- What is Air Quality
- What is Air pollution
- What is AQHI

• What is AI

• What is an AI model

• What is machine learning

• What are the effects of air pollution on human life

• What causes good/poor air quality

• Air quality and Wildfires in Canada

03/07/25

Research

- additional questions:
 - ↳ • What are LSTM's
 - What is an RNN
 - Neural Networks
 - AQHI vs AQI
 - How is AQI measured

Time Line:

- Finish Research and prerequisites before March 10
- Do model during week of March 10
- Do after class and analysis around March 15

~~Priority~~ School as well

03/11/25

Research

- Problem: Sciencebuddies data is USA ONLY, cannot do Canada focus or AI more rather than Canada due to AQTF

Potential Datas

- LA - free website, how AI can help in LA Canada
- India - (if possible) how AI world unknown
- Maybe China, AQTF
- If desperate use other USA centres

Also:

- Research countries that use AQTF

03/16/25

Science Fair

- Finish research
- Research about LA, NYC, New Delhi
 - ↳ • how is the AQI like there?
 - It is a major issue?
- Start value inputting tomorrow!
- Start methods, problems, hypo and such

03/17/25

Methods, Problem and LA

- Finished problem

- ↳ • maybe include explanation on how AI can help (Scope)

- Inputted LA data into Science @ address Model

- ↳ • observations

- ↳ • predictions are fairly accurate actually

- 365 days took long time to run.

- Continue methods, and start New York tomorrow.

* Think about connections to wilderness

03/18/25

New York

- ran New York data through model
 - ↳ • observations
 - ↳ • predicted values fairly accurately
 - same situation like LA

- continue methods, include what changed with new delhis form

PREP FOR DELHI:

- see what have to change in order for
- NOTE all pollutants are in $\mu\text{g}/\text{m}^3$ so not AQI see if can convert values via google sheets, etc.
- MUST RUN NEW DELHI TOMMOROW

- also put pol, project pr and deductions done

03/19/25

New Delhi

- could not find how to convert m/mg to AQI (maybe do during spring break?)

- changed code blocks and chart data from Fraggie

- ran New Delhi data through science-buddies model

X2

- ↳ encountered errors initially but fixed

- initial predictions were horrible!

- secondary prediction were actually quite good

- data points in google docs

- Finished Methods, start conclusion today or tomorrow

- ✓ put all required, and emailed teacher

03/20/25

Conclusion, Presentation

- started and finished

Conclusion

- Started presentation with basic information. will expand including real fair

• TOMMOROW IS LAST DAY *

* Film tomorrow as well

03/21/25

Finishing Touches

- put everything on platform, with correct formatting
- edited more things
- finished presentation
- created citations

✓ FINISH BASIL PROJECT

• think on how to
elaborate it, during
break make more
conclusions to
how AT vs ACT
can impact world areas

~~START TRIED~~
SOON.

X DON'T GET SICK THIS
FAIR |||