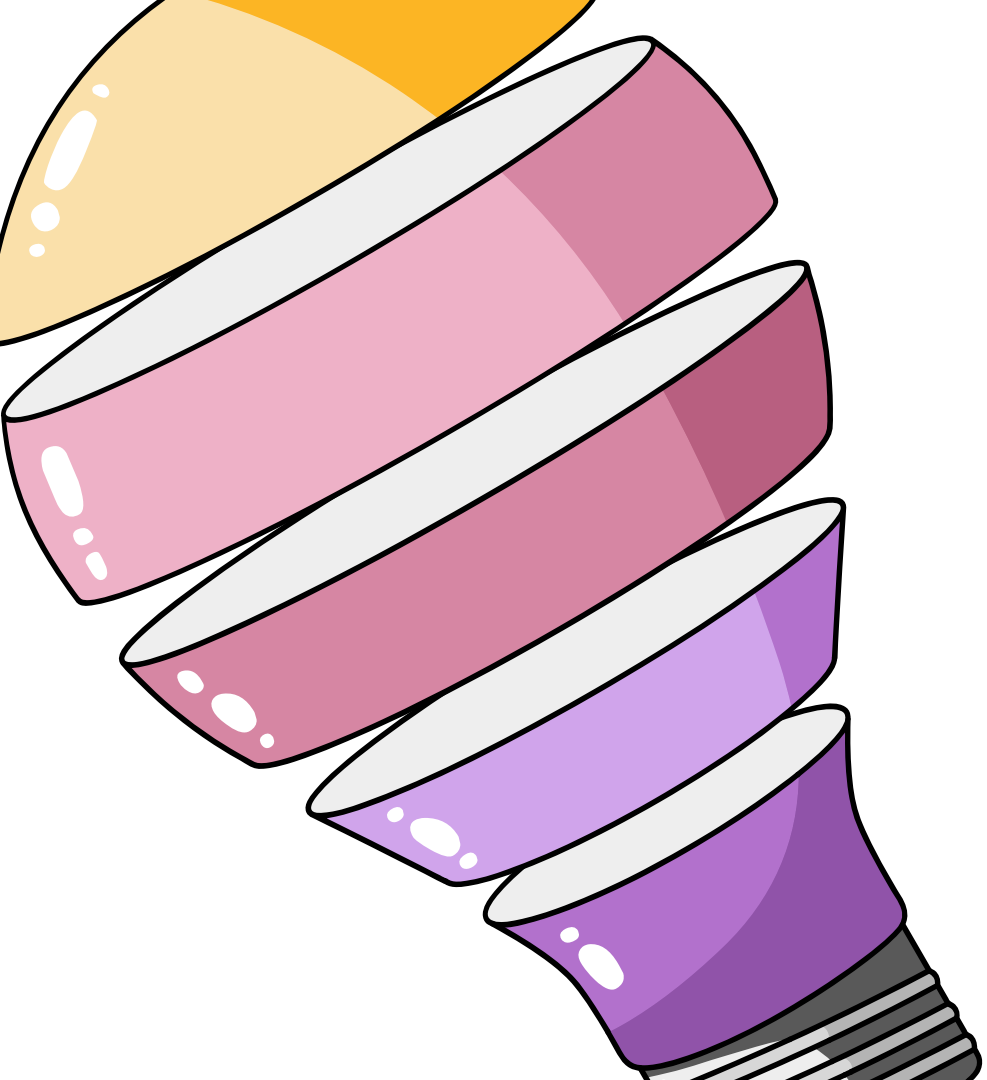


Capstone Topic Proposal

Sabrina Ellora Starr

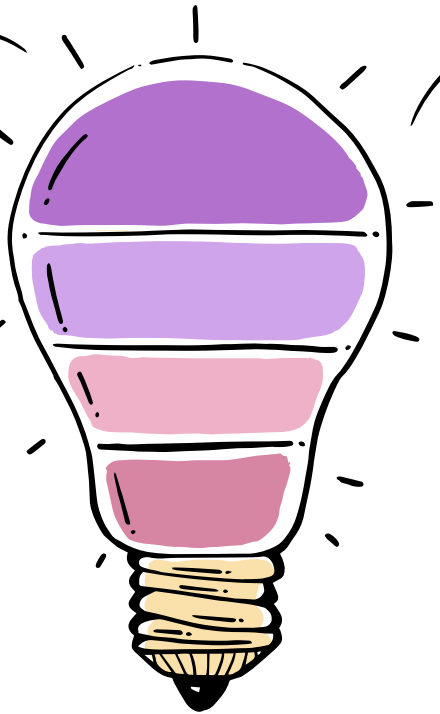
Ideas Overview

1

Health:
Autism Spectrum Disorder

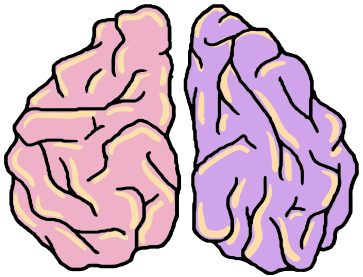
2

Market Research:
Average Household Savings if US Went All Electric



3

Science and Technology:
NASA Turbofan Engine Degradation



Autism Spectrum Disorder

Problem Statement

Is Autism Spectrum Disorder Predictable?

Who? Why?

1. The NIH, WHO, and other public health sectors
2. It could add to additional research done on ASD

Success

Build unsupervised model to intake user data, and output chance of ASD offspring due to particular risk factors.

Data Source

Autism patient's mutated gene dataset:
https://gene.sfari.org/database/human-gene/

Obstacles

1. Finding diseases associated with particular gene markers high in those with ASD
2. Finding clinical data to support findings

Feasibility

Medium due to possible data needs later on

Electric Vehicles

Problem Statement

What would the average household savings be if the US went all electric?

Who? Why?

Appealing to the average EV consumer, as well as EV companies looking for a good selling point to car traditionalists

Success

Building a model that can predict projected EV car usage

Data Source

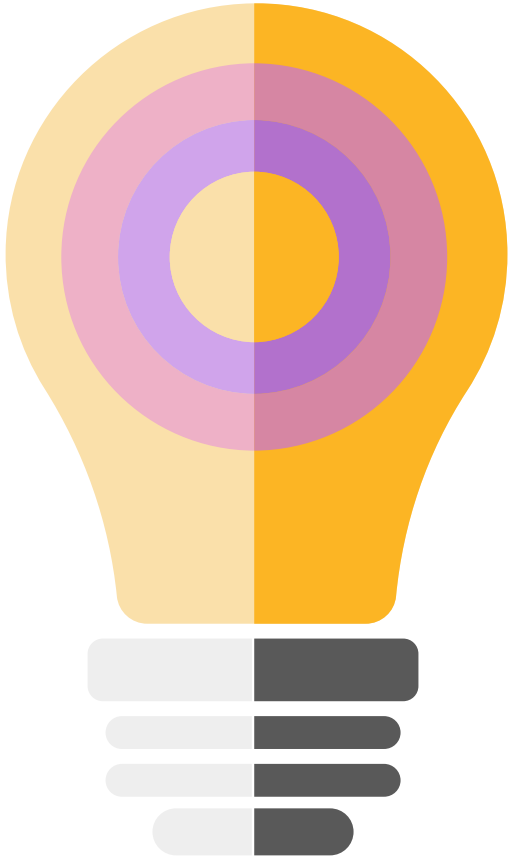
EV Population Data (State of Washington): https://catalog.data.gov/dataset/electric-vehicle-population-data

Obstacles

Accurately predicting EV usage based on dataset.

Feasibility

High due to dataset simplicity



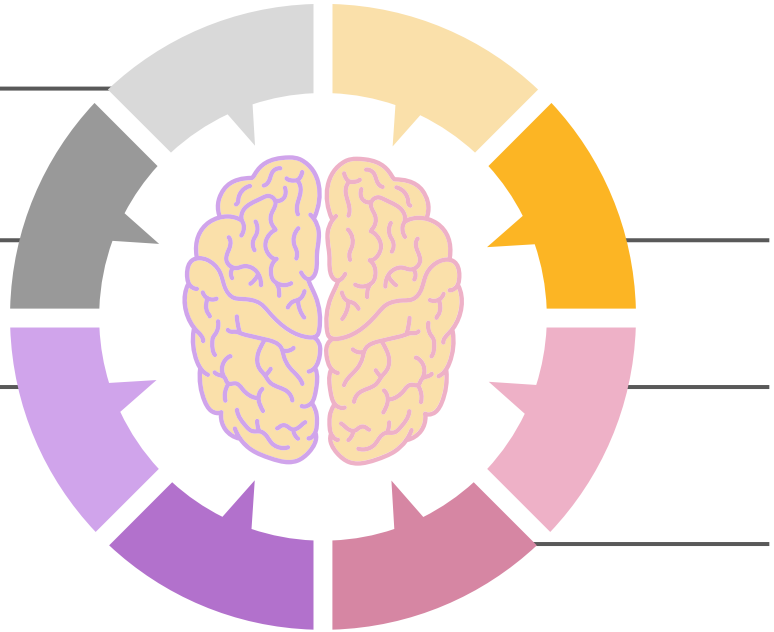
NASA

Problem Statement:
How fast until NASA's turbofan engine degrades?*

Who? Why?
Nasa, for material turbofan material research

Success:
Can my model accurately predict turbofan degradation?

*A turbofan engine is the most modern variation of the basic gas turbine engine.



Data Source:
Turbofan engine degradation simulation dataset:
https://data.nasa.gov/Aerospace/Turbofan-engine-degradation-simulation-data-set/vrks-gjie

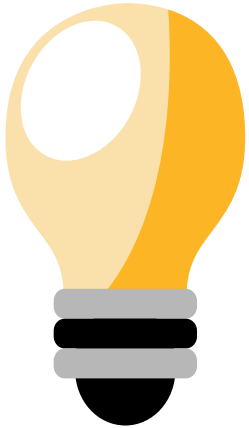
Obstacles:
New to content

Feasibility:
High/Medium due to understanding, and the fact the data is tailored for ML

Thank you!

Can’t wait to hear your ideas!

Slack: **@sabrinastarr**
LinkedIn: **www.linkedin.com/in/s-starr**



Courtesy of slidesgo and freepik