**Senior Project Proposal**

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**Project Overview**

I feel inspired to use my senior project as an opportunity to build my skills in python web development paired with data analytics. I’m choosing this path because as I prepare for my new job at General Motors, I’ll be doing a lot of this type of work. As far as what I want to build, I want to create a Streamlit website that covers all the current electric cars on the market and does analytics on them. I personally feel like this type of work and subject matter is interesting enough to me that I’ll be very engaged and interested throughout the semester all the way to the end. I will spend a good amount of time early in the semester collecting data from different sources on the web. I hope I won’t need to hand build my files and instead can grab things from the web through Beautiful Soup or another tool, but I’ll do what I need to.

**Areas of Research**

I’ll be using a bunch of tools that I’m not entirely familiar with but using Python and its accompanying data science libraries I should be able to do find on the programming side of things. Here is a full list of tools and information I’ll be researching for this project:

• Streamlit (Python)

• Popular UX Design Elements

• Object oriented programming in Python

• Current condition of the car market and upcoming car releases

• Same as above but looking at grabbing data.

• SQLite (Database management)

**Proposed Deliverables**

To be concise:

• Full-fledged GitHub repo with documentation.

• Interactive Streamlit app and the works.

• Presentation and interactive demonstration.

**Timeline**

I’ll be building this through the design thinking process.

• Week 1 — Project Proposal and Brainstorming

• Week 2 — **Define:** Gain empathy on the current state of industry, research.

• Week 3 — Collection of Car Data w/ or w/o tools

• Week 4 — Importing Data and Formatting

• Week 5 — Build environment in VS code and GitHub, files and libraries

• Week 6 — **Ideate:** Pseudocode/Designing actual product

• Week 7 — Interview and ask for more feedback, redo if needed.

• Week 8 — **Prototype:** Start Building Streamlit structure script

• Week 9 — Build graphs and analytic comparisons into the work.

• Week 10 — Add research and findings to help end users find their own opinion.

• Week 11 — **Test**: and fix any underlying bugs, share and get feedback.

• Week 12 — Make final changes and polish work.

• Week 13 — Polish documentation and presentation.

• Final Week — Give presentation and postpartum.