## Software Architecture

## **Backend**

- Python Classes
  - o Why: Because that is what our team is most comfortable in
  - Classes for AddressBook and Entry
  - o Address Books are held in memory while the program runs
  - Commands come from the API
- API
  - Flask web server with routes that we use as an API
  - Pure POST requests, (not RESTful) but returns status code with each response
  - Connects electron frontend with python backend

## **Frontend**

- HTML, CSS, JS
  - Why: Because we want to create a modern looking GUI
  - Used to put content inside of our GUI
- ElectronJS
  - A framework for building desktop apps using web technologies
  - Why: We originally planned to make a web app, but after reading the project requirements we realized it had to be a desktop application. This allows us to continue building the app as if it were a web app and at the end package it up as a cross-platform desktop app.
  - Makes and controls the GUI
  - Sits in the middle of html,css,js and python
  - Hot reloadable
  - Native menus, notifications
  - Ability to create an installer

## **Implementation**

- The app starts
  - Electron starts the API server in the background
  - Electron is now ready to work so it creates the main window
- The app quits
  - o Electron closes the windows
  - Electron kills the API server