PROJECTS

Great Lakes Pollution Simulator — *Honors Project in Linear Algebra*
FALL 2016

- Developed a program that models the spread of pollution throughout the Great Lakes using differential equations
- Implemented a basic user interface that allows users to enter initial pollution levels of the lakes and ongoing pollution levels of the rivers that feed into the great lakes, and see future pollution levels hundreds or thousands of years into the future

Plant ID — *Project for IN4MATX 117: Project in Software System Design*
SPRING 2018

- Worked with a Senior Science Advisor from the Irvine Ranch Conservancy to create a design document for a cross platform app to replace their field manual and for nontechnical users to explore the conservancy
- Worked with a team of four to develop the app from scratch based upon the design document
- Held bi-weekly sprint reports with the Senior Science Advisor to go over our progress and get feedback

Discord Bot — *A Personal Project*
SINCE FEBRUARY 2017

- Added functionality to an existing bot that involved reading in text based commands from a VOIP server, storing user information in .json format, and scraping websites for information related to those users
- Worked with two other developers using GitHub to create and test code that was ultimately pushed to a headless server run on a raspberry pi, using ssh