ELEVENTH ANNUAL
STUDENT SHOWCASE
VIRTUAL
APRIL 24, 2020
coloradomesa.edu/showcase

DEPARTMENT:

Engineering and Computer Science

FACULTY SPONSOR:

Dr. Warren MacEvoy

STUDENT(S):

Andrew Piechota

PROJECT TITLE:

Simple GIS

The "Team"

Initially two
  Myself and one other
  Now just me

Senior, majoring in Computer Science

Intern at Kaart Group, LLC
        (GIS company in town)

The Terms

GIS – Geographic Information Systems

    Systems that deal with spatial data

JOSM – Java OpenStreetMap Editor

    Steep learning curve

    Robust, stable

    Supports the largest amount of plugins

iD – not an acronym :)

    Easily accessible

    Simple, intuitive

OSM – OpenStreetMap

    Comparative to Google/Apple Maps

        EXCEPT that all geospatial data on OSM is opensource

The Problem/Requirements

Edit open source and proprietary data – Simultaneously

Other problems that will need to be solved (eventually):

Allow several organizations (only allow access to their data)

Have pre-built lists of features

The Solution/Design

Not reinventing the wheel

iD was chosen to be modified
  Already opensource (good jumping off point)

Need:
    Frontend, Backends -> (OSM, Prop API, Org DB)
    Access to OSM API (dev version)
    Create/access proprietary API

Summary

Forked iD and modified it
  Allow users to edit OSM & proprietary data concurrently

Created splash/login screen with React and Flask

Created organizational backend with Flask (will eventually hook up to splash/login)

Hooked up LightSail instance of proprietary API (OSM API clone)
    I did not create this LightSail instance, the senior dev over at Kaart did all of the configuration for it. I hooked it into the iD editor.

Questions?

Feel free to email me at:

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