

ABIGAIL LARA BURNS

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EDUCATION

Master of Science in Social Data Analytics and Research (2022 – Present)

The University of Texas at Dallas – School of Economic, Political and Policy Sciences

Bachelor of Science in Geospatial Information Science

The University of Texas at Dallas – School of Economic, Political and Policy Sciences

RELEVANT COURSEWORK

[Applied Geographic Information Systems](#)

[Information Management](#)

[Health and Environmental GIS](#)

[Advanced GIS](#)

TECHNICAL SKILLS

Languages:

Python, SQL, Arcade, HTML, R

Applications:

ArcGIS Pro, ArcGIS Enterprise, ArcGIS Server,
ERDAS Imagine, GeoDa, Microsoft Excel

Functions:

Cartography, Spatial and Geostatistical Analysis,
Spatial ETL, Data Design, Database Management

PROJECTS

[Program Design Project](#) – Jupyter Notebook, Python 3.7 (with emphasis on ArcPy & for loops)

- Allows users to graphically compare floods with existing flood datasets
- Calculates severity index and produces map in ArcGIS Pro with graduated symbology based on the index

[San Francisco Land Subsidence](#) – ArcGIS Pro, GPS

- Analysis of land change in the San Francisco Bay Area using GPS data, surface interpolation, and volume

WORK EXPERIENCE

GIS Analyst

August 2022 – Present

Town of Prosper Government – Prosper, TX

- Review and represent land developments throughout all stages from submittal to construction
- Create features from As-Built and CAD drawings and design attribution for underground utilities
- Design and implement the [Open Data website](#) for public sharing of Town-maintained GIS data
- Deploy mobile maps and instruct usage of GPS for field collection of underground utility data
- Perform spatial ETL of Appraisal District and NCT9-1-1 data using Python scripting

Contract Employee

February 2022 – May 2022

NewGen Strategies & Solutions – Richardson, TX

- Perform [supervised object-based image classification](#) and analysis
- Tabulate impervious area and calculate Equivalent Residential Units for stormwater management

GIS Coordinator PT

March 2021 – August 2022

Collin County Government – McKinney, TX

- Reverse-geocode to assign 9-1-1 rural addresses to burgeoning property developments
- Replicate and synchronize versioned data with NCTCOG and [perform spatial analysis](#)
- Perform spatial ETL of city government data using Python scripting and ModelBuilder