

ABIGAIL LARA BURNS

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Passionate and thorough geospatial professional dedicated to empowering and informing decision-making

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](#)

[Health and Environmental GIS](#)

[Information Management](#)

[Advanced GIS](#)

TECHNICAL SKILLS

Languages:

Applications and Software:

Functions:

Python, SQL, Arcade, HTML, R

Esri ArcGIS Pro, ArcGIS Enterprise, ArcGIS Online, ArcGIS Server, ERDAS Imagine, GeoDa, Microsoft Excel, Microsoft SQL Server, SQLite

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

PROJECTS

[Program Design Project](#) – Jupyter Notebook, Python 3.7 (ArcPy, for loops, graphs, index calculation)

[San Francisco Land Subsidence](#) – ArcGIS Pro, GPS (surface interpolation, volume, 3D analysis)

WORK EXPERIENCE

GIS Analyst – Town of Prosper Municipal Government – Prosper, TX

August 2022 – Present

- Review COGO for, digitize, and attribute land developments from submittal to construction stages.
- Create and convert features from As-Built and CAD drawings for underground utility pipeline assets.
- Design domains and attribution for utility infrastructure, planning, and public safety datasets.
- Collect data for, maintain, symbolize, and publish feature services and [apps](#) for internal and public use.
- Configure 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.
- Log and respond to in a timely manner ticket requests for GIS services troubleshooting and support.
- Automate map series and spatial ETL processes using Python scripting.
- Backup, restore, and configure SQL Server instances and replicate between databases.
- Manage permissions and server roles among database and OS authenticated users of the GIS.
- Maintain documentation of GIS services implementation and usage.
- Improved accuracy, validated topologies, and enhanced visualization of spatial datasets.
- Completed backlog of utility asset digitization.
- Facilitated coordination with other departments and prioritized their feedback.
- Effectively mentored and recruited usage of GIS capabilities.

Contract Employee – NewGen Strategies & Solutions – Richardson, TX

February 2022 – May 2022

- Performed accurate [supervised object-based image classification](#) and analysis.
- Tabulated impervious area to calculate Equivalent Residential Units.
- Created an actionable table of parcels for effective and financially solvent stormwater management.

GIS Coordinator PT – Collin County Government – McKinney, TX

March 2021 – August 2022

- Reverse-geocoded to assign 9-1-1 rural addresses and replicated and synchronized this data with NCTCOG.
- Automated spatial ETL of city government data using Python scripting and ModelBuilder.
- Performed spatial analysis for visualization and promotion of [widely distributed polling centers](#).
- Efficiently and accurately addressed burgeoning property developments.