Broderik S. Craig

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Transportation planner with a quantitative foundation in mathematics and transportation engineering. Combines hands-on agency experience in service planning, GTFS/AVL/APC data systems, and research experience in equity modeling and multimodal network analysis. Effective at translating complex technical findings into actionable recommendations for operations staff, agency leadership, and public stakeholders.

Work Experience

Transit Planner **January 2026 – Present**
City of St. George SunTran *St. George, UT*
Agency's first dedicated transit planner, responsible for establishing analytical and planning infrastructure from the ground up.

- Audited the agency's CAD/AVL data pipeline and diagnosed a vendor-side error producing phantom arrival events that materially affected on-time performance reporting
- Built agency's first APC validation framework, reconciling automated counts against manual hand counts to verify data accuracy
- Prepared and visualized OTP, ridership, and socioeconomic data to support agency reporting and operational decision-making
- Led schedule preparation and validation for agency's first-ever change day
- Researched regional transit funding mechanisms by synthesizing state tax code, county ordinances, and public meeting records; produced findings used by leadership in funding strategy discussions

Transportation Engineer **May 2025 – January 2026**
Utah Department of Transportation: Transit Division *Taylorsville, UT*

- Developed reporting dashboards to brief stakeholders and department leadership on recent and ongoing statewide transit projects.
- Performed multimodal network analysis to assess transit access and catchment impact.
- Built and validated GIS tools for analyzing access to opportunity.
- Applied ArcGIS, Python, and SQL based workflows to support transit planning and reporting.

Graduate Researcher — Transit Electrification & Environmental Equity **January 2024 – May 2025**
U of U Department of Civil and Environmental Engineering *Salt Lake City, UT*

- Designed and optimized computational models for battery-electric bus deployment, balancing environmental, equity, and budget objectives.
- Modeled and visualized pollution exposure using GeoPandas, MOVES, InMAP, and CEJST data.

Undergraduate Research Assistant **May 2021 - April 2023**
BYU Dept. of Mathematics, BYU Dept. of Political Science *Provo, UT*

- Applied Python, R, and spatial analysis to multi-state election GIS datasets; used MCMC methods to evaluate redistricting fairness and optimize network models.

Education

MS, Transportation Engineering **April 2026**
The University of Utah *Salt Lake City, Utah*

BS, Mathematics: Applied & Computational Mathematics Emphasis (ACME) **April 2023**
Brigham Young University *Provo, Utah*

Skills

- **Transit & GIS Tools**: ArcGIS Pro, ArcPy, GeoPandas, TransCAD, PTV Vissim, MOVES, InMAP
- **Programming & Data Analysis:** Python, R, SQL, Jupyter, Machine Learning, Statistical Analysis
- **Visualization & Communication:** Matplotlib, Seaborn, ggplot2, Dashboard Development, Technical Writing