

Broderik S. Craig

linkedin.com/in/broderik-s-craig – broderik.craig@gmail.com – (435) 496-9324

<http://BroderikSCraig.com>

Education

BS, Applied & Computational Mathematics (ACME)

April 2023

Brigham Young University

Provo, Utah

- Mathematical theory, statistical analysis, and computer science applications.
- Teamwork, time management, and critical thinking skills.
- Undergraduate coding portfolio: bitbucket.org/bcraig99/workspace/projects
- Learn more about the applied mathematics program at BYU: acme.byu.edu

ACME Senior Projects Portfolio

- <https://broderikscraig.godaddysites.com/dynamic-modeling-project>
 - <https://broderikscraig.godaddysites.com/sequential-data-project>
 - <https://broderikscraig.godaddysites.com/control-modeling-project>
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Skills and Certifications

Google Advanced Data Analytics Professional

Certificate - June 29, 2023

Data Manipulation: SQL, Pandas, R

Programming Languages: Python, R, git, terminal

Data Science: Machine Learning, Artificial

Intelligence, Neural Networks, Deep Learning

Geospatial Analysis: Geopandas, GIS

Data Visualization: Python, R, Tableau

Languages: English and Spanish

Design Software: AutoCAD, SolidWorks

Honors: BYU Department of Mathematics

Recognition for Outstanding Performance

Communication: Strong Written and Oral Technical Communication Skill

Relevant Work Experience

Undergraduate Research Assistant

September 2022 - April 2023

BYU Dept. of Mathematics | Dr. Ben Webb

Provo, UT

- Pioneered techniques to study how networks evolve over time.
 - Parallelized implementations of the techniques to speed up data collection.
 - Analyzed how the technique affected network structure and dynamics over time.
 - Created visualizations of the networks and their properties.
 - <https://broderikscraig.godaddysites.com/dynamic-network-research>
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Undergraduate Research Assistant

May 2021 - September 2022

BYU Dept. of Mathematics | Dr. Tyler Jarvis

Provo, UT

- Mathematical analysis of redistricting and gerrymandering across the country.
 - Performed data cleaning, analysis, visualization and presentation.
 - Created an algorithm to aggregate census data into a precinct level.
 - Algorithm design and analysis to identify connections between compactness and political fairness metrics.
 - <https://broderikscraig.godaddysites.com/redistricting-research>
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Undergraduate Research Assistant

May 2022 - January 2023

BYU Dept. of Political Science | Dr. Michael Barber

Provo, UT

- Data provided from a nationally representative survey of American voters' policy preferences.
- Used R to clean and manipulate the data to find insights into the ideology of American voters.
- Discovered a leftward shift in policy when issues have been in the public consciousness for a time.
- Created a visualization poster that I presented to judges.
- <https://broderikscraig.godaddysites.com/ideology-visualization>