# Stephen Beecher

(210) 612-5521 | sbeecher0575@math.arizona.edu | Tucson, Arizona

## Education

**University of Arizona** **May 2021**

*Bachelor of Science in Statistics and Data Science* | *Bachelor of Arts in Psychology*

- 4.0 Cumulative GPA
- College of Science Highest Academic Distinction

**University of Arizona** **Expected May 2022**

*Master of Science in Statistics and Data Science*

## Work Experience

**C.A.T.S. Academics** **Aug 2019 – Present**

*Tutor & Member of the Executive Board* *Tucson, Arizona*

- Tutor calculus I, II, III, statistics, computer science, physics, and psychology courses
- Designed the Student-Worker employee database
- Organize and manage the C.A.T.S. Academics Slack workspace
- Manage drop-in "Math Content Lab"—including expansion and tutoring

Professional Promise Award (Spring 2020) – Given to 3-5 employees for outstanding work

**USAA** **May 2021 – August 2021**

*Decision Science Analyst (Intern)* *Remote*

*San Antonio, Texas*

- Design statistical tests and analysis to answer business questions
- Present and write reports discussing the results of the analyses
- Provide statistical consulting help to stakeholders

## Projects

**American National Election Study (2016, 2020) survey analysis** **Nov 2019 – Dec 2021**

- Implemented machine learning algorithms such as LASSO, Random forest, LDA, and others in R to address various topics
- Compared voting patterns from people of different racial and socioeconomic status
- Presented findings in report and presentation with data visualization

**Larval Growth in Dry Wells in Phoenix, AZ** **Sep 2021**

- Provided statistical consulting help on PhD dissertation statistical analysis
- Used a linear mixed model on experiment data results
- Presented findings in report, with explained model and SAS implementation

# Stephen Beecher

**Vaccination rates in Mali, Minetti et al. (2012)** **Nov 2021**

- Designed a new analysis of cluster sampling scheme to estimate vaccination rates
- Explored Bayesian hierarchical models and parameter estimation

**Homelessness in the United States** **Apr – May 2021**

- Combined data from the US Census Bureau, Dept. of Housing and Urban Development, and Bureau of Economic Analysis
- Implemented machine learning algorithms such as LASSO and Random Forest to associate variables from all these areas with homelessness levels
- Presented findings in report and presentation with graphical visualization (including maps)

## Skills

| | |
|---|---|
| **Programming** | R, SAS, Python |
| **Software** | Microsoft Access, Microsoft Excel, ArcGIS, Adobe Acrobat & Photoshop |
| **Statistics** | Bayesian statistics, Probability & Statistics Theory, Linear Modeling, Written and Verbal Statistics Communication |
| **Data Science** | Machine Learning, Database & Geodatabase Design, Data Visualization, Natural Language Processing |
| **Psychology** | Political, Social, and Economic Psychology (in USA primarily), Familiarity with DSM-V |

## Other Interests

| | |
|---|---|
| **Music** | Cello, Piano, Learning new instruments, Composition |
| **Film/Literature** | Viewing, Reading, and Analysis |

## Future Work Experience

**USAA** **Beginning June 2022**

*Decision Science Analyst II* *Remote*

*San Antonio, Texas*

- Design statistical tests and analysis to answer business questions
- Present and write reports discussing the results of the analyses
- Provide statistical consulting help to stakeholders