# Jack Hester

## Education

**Brown University,** Master of Public Health            Providence, RI, Expected Graduation May 2021

– *Courses Include:* Medical device design and wearables, GIS, designing health interventions, biostatistics, regression, introduction to epidemiology

**Emory University,** B.A. Interdisciplinary Studies           Atlanta, GA, August 2015-May 2019

– *Courses Included:* Data visualization, biological and computational modeling, computational linguistics, food security, special topics in the opioid epidemic, research methods, biomedical ethics
– *Thesis:* "A Verb-Based Approach to Mining Adverse Drug Side Effects from Online Health Care Forums"

## Work Experience

**SafeTrace,** Health Data Scientist, Lead Frontend Developer      **Global Collaborative, March 2020-Present**

– Part of a global group developing a privacy-first COVID-19 contact tracing app and research platform
– Working on epidemiological models and tools and leading the mobile app development team
– Coding python tools and mobile app, working on privacy model, wrote two whitepapers

**The HELLO Project,** Intern             **Reno, NV, March 2020-Present**

– Robert Wood Johnson Foundation supported program working with a local hospital group, county health district, and local organizations to address the senior citizen loneliness epidemic, currently focusing on COVID-19 related needs
– Currently working on disseminating COVID-19 information and updates via newsletters, events, and podcasts and coordinating local efforts to address needs and loneliness

**Center for Evidence Synthesis in Health,** Graduate Research Assistant **Providence, RI, September 2019-Present**

– Building Evidence Synthesis Academy website modules, including website programming
– Developing a Summer at Brown course that focuses on evidence-based research methods and evidence synthesis techniques

**Emory University QSS/LING Departments,** Teaching Assistant      **Atlanta, GA, January 2019-May 2019**

– Built software tools and GUI for automatic natural language processing, used by students and other researchers in the department
– Created and graded assignments, and tests and held office hours for "Big/Small Data Visualization"

**Workwinz,** Full Stack Developer          **Atlanta, GA and Reno, NV, January 2019-May 2019**

– Programmed front-end of website using HTML, CSS, PHP, and JavaScript
– Built and implemented backend for user sign-up and rewards system using SQL, AWS hosting, and Google APIs

**Emory University Institute for the Liberal Arts,** Research Intern      **Atlanta, GA, March 2017-July 2017**

– Designed and prototyped "Philosophy in Science" website allowing readers to navigate between examples and stories to enhance understanding of philosophical principles, used WordPress for website design

**The Abbi Agency Creative Content Department,** Intern         **Reno, NV, June 2016-August 2016**

– Authored press releases, responses to requests for proposals, and event descriptions on behalf of local government and private entities as well as for internal agency use

**Marketing Evolution,** Software Engineering Intern         **Reno, NV, June 2015-July 2015**

– Created mock-ups of Apple Watch app, including storyboarding app workflow and UX diagrams
– Programmed front end of watch app using Swift, connected app to company backend
– App presented users with simple interface with personalized marketing analytics (such as ROI) at a glance

## Teaching Experience

**CEPC 0911,** Brown University                                    **Providence, RI, June 2020-August 2020**
   – Taught Summer at Brown course called "From idea to publication: building your own research project"
   – Course stepped students through basics of research, including systematic reviews and citations, basic statistics and hypothesis testing, data visualization, and presentation, and writing and publication styles
   – Course is structured around student-chosen projects and data sets
   – Students ranged from beginning of high school to first year of college age

**Data Can Be Beautiful,** Emory University Institute for the Liberal Arts          **Atlanta, GA, October 2018**
   – Guest lectured on data visualization in the Emory University Interdisciplinary Studies major senior seminar
   – Taught basics of data visualization with examples from my research and creation of an interactive network diagram of each of the students' areas of study

## Volunteer and Shadowing Experience

**Sky Tavern Junior Ski Program,** Ski Instructor                **Reno, NV, December 2012-January 2016**
   – Certified ski instructor at largest not-for-profit community ski program in the US.
   – Learned to ski in adaptive ski program, then volunteer taught able-bodied and adaptive skiers for over 250 hours
   – Became Professional Ski Instructors of America level 1 instructor with child specialist certification

**Shriners Hospital,** Intern                                        **Sacramento, CA, May 2015**
   – Previously a patient at Shriners, was able to work in departments where I received care
   – Assisted with repairing and building prostheses in Pediatric Orthotic and Prosthetic Lab and shadowed prosthetists during patient visits
   – Shadowed orthopedic doctor in Ambulatory Clinic

**Renown Hospital,** Job Shadowing                                    **Reno, NV, June 2014**
   – Shadowed pathologist, participated in collection of samples in operating room, viewed slides of the samples
   – Saw numerous types of tumors, growths, and diseases present in samples, and how pathologists interact with surgeons to improve patient outcomes

## Presentations

**J. Hester**, C. Baden. *Beautiful Data: Visualization techniques for research and classrooms,* Critical Juncture 2019: April 6, 2019.

*Doing Away with the Drudgery of Hand-Coded Content Analysis,* 37th Annual Southeastern Undergraduate Sociology Symposium; Atlanta, GA: February 23, 2019.

*A New Standard for Discovering Side Effects: Using linguistic analysis algorithms to predict prescription drug side effects from online forum posts,* Emory University Undergraduate Research Symposium, Atlanta, GA: April 25, 2018.

*Mining Adverse Drug Side Effects from Online Forum Posts,* ILA Undergraduate Research Symposium, Atlanta, GA: April 20, 2018.

A. Stutz, B. Greenfield, **J. Hester,** J. Sarrett, K. Dreffs, R. Kolb. *Perspectives on the Inclusion and Success of Students with "Disabilities" in Colleges and Universities,* Emory Inclusion Summit, Atlanta, GA: April 19, 2018.

*Mobility at a Standstill: Improving flawed transportation and accessibility in the US*, Critical Juncture 2017, Atlanta, GA: March 18, 2017.

## Committee Involvement

**City of Reno Public Health Emergency Advisory Committee,** Secretary          **Reno, NV, May 2020-Present**
   – Worked on the City's COVID-19 response including aggregating data and public-facing metrics and visualizations

## Fellowships

**Train Fellowship, Emory University**                    **Atlanta, GA, Fall 2017-Spring 2018**

– Worked on Translational Research and Innovation Network (TRAIN) projects including designing and developing open source code for a drone model using Arduinos software and producing model parts using a 3-D printer

**Franklin Fellows, Emory University**                    **Atlanta, GA, Fall 2017-Spring 2019**

– Through a series of group events, such as film discussion groups and dialog with visiting scholars, the fellowship focused on extending and expanding a liberal arts education during the undergraduate college years. Goals included improving critical thinking, close reading, and clear, cogent writing.

## Professional Memberships and Certifications

American Planning Association

American Public Health Association

American Physical Society

Certification, CITI IRB—Basic Human Subjects Protection: Social/Behavioral Focus

Certification, Professional Ski Instructor of America Level 1 Instructor with Child Specialist Certification

## Skill Sets

**Statistical Software**

– *Software packages*: R/R Markdown and SPSS

– *Coursework*: Statistics and biostatistics, linear algebra, and an APHA Learning Institute course in "Biostatistics for non-statisticians"

**Programming Languages**

– *Languages:* Python, Java, HTML/CSS, PHP, SQL, and Swift

– *Coursework:* Introduction to Algorithm Design, Computational Modeling for Scientists and Engineers

**Data Visualization**

– *Software:* Gephi, visjs, d3js (JavaScript package), ggplot2 (R packages), and LaTeX

– *Natural language processing tools:* Web scraping, Stanford CoreNLP, and topic modeling via Gensim and Mallet

– *Coursework:* Data visualization with applications in computational linguistics, marketing, and advertising (university level)

**Geographic Information Systems (GIS)**

– *Software:* ArcGIS (Pro and Online), Google Earth, Google Earth Engine, QGIS

– *Coursework:* A GIS directed study course using health and remote sensing databases (university level) and an ESRI course in ArcGIS cartography

**Languages**

– English and Spanish