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 0904, Brown University   **Providence, RI, July 2020-August 2020 (Forthcoming)**
- Teaching Summer at Brown course called "From idea to publication: building your own research project"
- Course steps students through basics of research, including systematic reviews and citations, basic statistics and hypothesis testing, data visualization, summary, and presentation, and writing and publication styles
- Course is structured around student-chosen projects and data sets
- Students will range 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.

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