

# Jack Hester

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## Education

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**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
- *Thesis:* “A Verb-Based Approach to Mining Adverse Drug Side Effects from Online Health Care Forums”

## Work Experience

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**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
- Designed assignments and tests, graded assignments, and held office hours

**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

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**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 with minimal formal lecturing
- Students 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*, 37<sup>th</sup> 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.

## **Clubs**

Undergraduate Disability Studies Initiative

Atlanta, GA, Fall 2015-Spring 2019

Reformed University Fellowship

Atlanta, GA, Fall 2015-Spring 2019

Emory Rocketry Club

Atlanta, GA, Fall 2016-Spring 2017

## **Professional Memberships and Certifications**

American Planning Association

American Public Health Association

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**

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### **Statistical Software**

- *Software packages*: R/R Markdown and SPSS
- *Coursework*: Statistics and biostatistics, linear algebra, and introduction to differential equations, 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, neo4j, 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, and 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