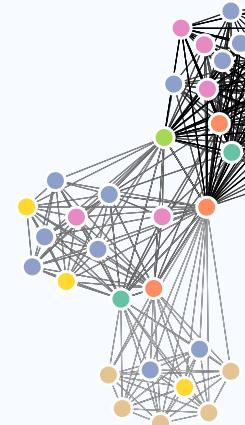


CONNOR M. FRENCH

I have made visualizations viewed by hundreds of thousands of people¹, sped up query times for 25 terabytes of data by an average of 4,800 times², and built packages for R³ that let you do magic⁴.



EDUCATION

current
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2018

- **PhD Student, Biology- Ecology, Evolution, and Behavior**
New York, New York 

- Population genetic patterns and processes from local to global scales
- Graduate Center Digital Fellow

2018
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2016

- **M.S., Zoology**
Carbondale, Illinois 

- Systematics, phylogeography, and landscape genetics of the Ameerega petersi group (family Dendrobatidae)
- Cooperative Wildlife Research Lab

2015
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2011

- **B.S., Biology- Ecology, Evolution, and Behavior**
Austin, Texas 

View this CV online with links at
connor-french.com/cv

RESEARCH EXPERIENCE

Current
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2016

- **Research Assistant**
Texas Biodiversity Collections 

- Herpetology Division
- Supported data collection and collections management for conservation efforts.

current
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2018

- **Graduate Research Assistant**
Michael J. Hickerson Lab 

- Investigating evolutionary responses to environmental change across spatial scales.

2018
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2016

- **Graduate Research Assistant**
Jason L. Brown Lab 

- Completed thesis work on the evolution of Andean poison frogs.

2014
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2013

- **Undergraduate Researcher**
Daniel I. Bolnick Laboratory 

- Completed an independent project through the National Science Foundation Research Experience for Undergraduates. Experimental design, field work in British Columbia, lab work, data analysis, and first-author publication.

CONTACT

- ✉ nick.strayer@gmail.com
- 🐦 [NicholasStrayer](#)
- /github.com/nstrayer
- 🔗 [nickstrayer.me](#)
- linkedin.com/in/nickstrayer

LANGUAGE SKILLS



Made with the R package
[pagedown](#).

The source code is available on
github.com/nstrayer/cv.

Last updated on 2021-06-06.

<p>2014 2013</p>	<ul style="list-style-type: none"> ● Undergraduate Researcher David Cannatella Laboratory <ul style="list-style-type: none"> • Field work in support of frog acoustic research. 	 University of Texas
<p>2014 2014</p>	<ul style="list-style-type: none"> ● Field Technician Middlesex, Belize <ul style="list-style-type: none"> • Designed and executed field protocols for monitoring amphibian populations. 	 Toucan Ridge Ecology and Education Society
<p>2014 2014</p>	<ul style="list-style-type: none"> ● Collections Assistant Texas Biodiversity Collections <ul style="list-style-type: none"> • Ichthyology Division • Collected and analyzed fish morphometric data for taxonomic research and digitized research collections. 	 University of Texas

TEACHING EXPERIENCE

<p>2021 2021</p>	<ul style="list-style-type: none"> ● R for Reproducible Scientific Analysis⁵ Columbia University <ul style="list-style-type: none"> • Invited workshop. • Half-day online workshop as part of the Pre-Statistics Course Bootcamp. • Facilitated by Software Carpentries. 	 New York, NY
<p>2021 2021</p>	<ul style="list-style-type: none"> ● Introduction to Text Analysis in R⁶ CUNY Graduate Center <ul style="list-style-type: none"> • 1.5 hour online workshop for CUNY Graduate Center faculty and students. • Hosted on rstudio.cloud⁷. • Given as part of the GC Digital Fellows. 	 New York, NY
<p>2021 2020</p>	<ul style="list-style-type: none"> ● Digital Research Institute⁸ CUNY Graduate Center <ul style="list-style-type: none"> • Five day series of workshops introducing CUNY faculty and students to digital tools for research. • Two sessions- one in January 2020 and one in February 2021. • Led the R track. 	 New York, NY
<p>2020 2020</p>	<ul style="list-style-type: none"> ● Reproducible Data Analysis in R⁹ CUNY Graduate Center <ul style="list-style-type: none"> • 2.5 hour workshop on using RMarkdown and github for reproducible data analysis. • Hosted within the workr¹⁰ R package as an interactive tutorial. • Given as part of the GC Digital Fellows 	 New York, NY

I am passionate about education. I believe that no topic is too complex if the teacher is empathetic and willing to think about new methods of approaching task.

2020 2020	<ul style="list-style-type: none"> ● Data Visualization in R¹¹ CUNY Graduate Center 📍 New York, NY <ul style="list-style-type: none"> • 2.5 hour workshop on using ggplot2 for data visualization. • Hosted within the <code>workr</code>¹² R package as an interactive tutorial. • Given as part of the GC Digital Fellows
2020 2020	<ul style="list-style-type: none"> ● Exploring population structure in R with adegenet and sNMF¹³ CUNY Graduate Center 📍 New York, NY <ul style="list-style-type: none"> • 1.5 hour online workshop given to an international group of evolutionary biology faculty and graduate students as part of the four day Bioinformatics Bootcamp for Ecology and Evolution.
2020 2020	<ul style="list-style-type: none"> ● Introduction to R and RStudio¹⁴ CUNY Graduate Center 📍 New York, NY <ul style="list-style-type: none"> • Two hour online workshop for CUNY Graduate Center faculty and students. • Given as part of the GC Digital Fellows.
2019 2019	<ul style="list-style-type: none"> ● Introduction to population structure inference in R¹⁵ SIUC Zoology Department 📍 Carbondale, IL <ul style="list-style-type: none"> • Invited workshop. • Two hour workshop for Zoology graduate and undergraduate students.
2019 2019	<ul style="list-style-type: none"> ● Introductory R and RStudio CUNY Graduate Center 📍 New York, NY <ul style="list-style-type: none"> • Invited workshop. • 1.5 hour workshop for graduate students in the Quantitative Zoogeography graduate course.
2019 2019	<ul style="list-style-type: none"> ● Bioinformatic processing of ultraconserved elements for phylogenetic analysis SIUC Zoology Department 📍 Carbondale, IL <ul style="list-style-type: none"> • Two hour workshop to introduce graduate students to a bioinformatic pipeline.
2019 2019	<ul style="list-style-type: none"> ● SLiM 5-day workshop¹⁶ CUNY Biology Department 📍 New York, NY <ul style="list-style-type: none"> • Co-organized five full-day workshop on SLiM population genetic simulation program
2019 2019	<ul style="list-style-type: none"> ● Data Wrangling in R¹⁷ CUNY Graduate Center 📍 New York, NY <ul style="list-style-type: none"> • 2.5 hour workshop on using the tidyverse for data manipulation. • Hosted within the <code>workr</code>¹⁸ R package as an interactive tutorial. • Given as part of the GC Digital Fellows

2018
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2017

- **BioSkills**
SIUC Biology Department 📍 Carbondale, IL
 - TA, BIO 212
 - Co-developed material for new writing and discussion-based course section.
 - Concurrently ran ecology and developmental biology sections.
- **Introduction to Evolution and Ecology Lab**
SIUC Biology Department 📍 Carbondale, IL
 - TA, BIO 212
 - Led and prepared labs.
- **Vertebrate Anatomy Lab**
SIUC Zoology Department 📍 Carbondale, IL
 - TA, ZOOL 418
 - Led and prepared labs.
 - Advised undergraduate lab assistant.
- **Reptile and amphibian survey and capture techniques**
SIUC Zoology Department 📍 Carbondale, IL
 - Invited lecture, Curation of Collections (PLB 401).
 - One hour lecture on best practices for herpetological surveys.
- **Appropriate techniques for identifying and handling reptiles and amphibians in the field.**
SIUC Zoology Department 📍 Carbondale, IL
 - Invited lecture, SIUC Wildlife Techniques (ZOOL 469).
 - One hour lecture and field demonstration on best practices for herpetological surveys.
- **Introductory Biology for Non-Majors Lab**
SIUC Zoology Department 📍 Carbondale, IL
 - TA, ZOOL 115
 - Led and prepared labs.
- **Instructor**
Camp Einstein Afterschool STEM Program 📍 Austin, TX
 - Summer afterschool program for early elementary school students.
- **Biostatistics**
UT Biology Department 📍 Austin, TX
 - Undergraduate TA
 - Assisted graduate TA with leading and grading R programming labs, and facilitating course discussion.

↳ SELECTED DATA SCIENCE WRITING

I regularly blog about data science and visualization on my blog [LiveFreeOrDichotomize](#).¹⁹

2017

- **The Traveling Metallurgist²⁰**
LiveFreeOrDichotomize.com
 - Pure javascript implementation of traveling salesman solution using simulated annealing.
 - Allows reader to customize the number and location of cities to attempt to trick the algorithm.

[selected press (about)]

2017

- **Great paper? Swipe right on the new ‘Tinder for preprints’ app²¹**
Science
 - Story of the app Papr²² made with Jeff Leek and Lucy D'Agostino McGowan.
- **Swipe right for science: Papr app is ‘Tinder for preprints’²³**
Nature News
 - Second press article for app Papr.
- **The Deeper Story in the Data²⁴**
University of Vermont Quarterly
 - Story on my path post graduation and the power of narrative.

[selected press (by)]

2016

- **The Great Student Migration²⁵**
The New York Times
 - Most shared and discussed article from the New York Times for August 2016.
- **Wildfires are Getting Worse, The New York Times²⁶**
The New York Times
 - GIS analysis and modeling of fire patterns and trends
 - Data in collaboration with NASA and USGS
- **Who’s Speaking at the Democratic National Convention?²⁷**
The New York Times
 - Data scraped from CSPAN records to figure out who talked and past conventions.
- **Who’s Speaking at the Republican National Convention?²⁸**
The New York Times
 - Used same data scraping techniques as Who’s Speaking at the Democratic National Convention?

2016
|
2016

- **A Trail of Terror in Nice, Block by Block²⁹**
The New York Times
 - Led research effort to put together story of 2016 terrorist attack in Nice, France in less than 12 hours.
 - Work won Silver medal at Malofiej 2017, and gold at Society of News and Design.

SELECTED PUBLICATIONS, POSTERS, AND TALKS

2020

- **Building a software package in tandem with machine learning methods research can result in both more rigorous code and more rigorous research**
ENAR 2020
 - Invited talk in Human Data Interaction section.
 - How and why building an R package can benefit methodological research

2020

- **Stochastic Block Modeling in R, Statistically rigorous clustering with rigorous code³⁰**
RStudio::conf 2020
 - Invited talk about new sbmR package³¹.
 - Focus on how software development and methodological research can improve both benefit when done in tandem.
- **PheWAS-ME: A web-app for interactive exploration of multimorbidity patterns in PheWAS³²**
Bioinformatics
 - Manuscript detailing application for the exploration of multimorbidity patterns in PheWAS analyses
 - See landing page³³ for more information.

2019
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2019

- **Charge Reductions Associated with Shortening Time to Recovery in Septic Shock³⁴**
Chest
 - Authored with Wesley H. Self, MD MPH; Dandan Liu, PhD; Stephan Russ, MD, MPH; Michael J. Ward, MD, PhD, MBA; Nathan I. Shapiro, MD, MPH; Todd W. Rice, MD, MSc; Matthew W. Semler, MD, MSc.

2019
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2019

- **Multimorbidity Explorer | A shiny app for exploring EHR and biobank data³⁵**
RStudio::conf 2019
 - Contributed Poster. Authored with Yaomin Xu.

2019
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2019

- **Taking a network view of EHR and Biobank data to find explainable multivariate patterns³⁶**
Vanderbilt Biostatistics Seminar Series
 - University wide seminar series.

- 2019
- **Patient-specific risk factors independently influence survival in Myelodysplastic Syndromes in an unbiased review of EHR records**
Under-Review (copy available upon request.)
 - Bayesian network analysis used to find novel subgroups of patients with Myelodysplastic Syndromes (MDS).
 - Analysis done using method built for my dissertation.
- 2019
- **Patient specific comorbidities impact overall survival in myelofibrosis**
Under-Review (copy available upon request.)
 - Bayesian network analysis used to find robust novel subgroups of patients with given genetic mutations.
 - Analysis done using method built for my dissertation.
- 2018
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2018
- **R timelineViz: Visualizing the distribution of study events in longitudinal studies**
Under-Review (copy available upon request.)
 - Authored with Alex Sunderman of the Vanderbilt Department of Epidemiology.
- 2017
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2017
- **Continuous Classification using Deep Neural Networks⁷**
Vanderbilt Biostatistics Qualification Exam
 - Review of methods for classifying continuous data streams using neural networks
 - Successfully met qualifying examination standards
- 2015
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2015
- **Asymmetric Linkage Disequilibrium: Tools for Dissecting Multiallelic LD**
Journal of Human Immunology
 - Authored with Richard Single, Vanja Paunic, Mark Albrecht, and Martin Maiers.
- 2015
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2015
- **An Agent Based Model of Mysis Migration⁸**
International Association of Great Lakes Research Conference
 - Authored with Brian O'Malley, Sture Hansson, and Jason Stockwell.
- 2015
|
2015
- **Declines of Mysis diluviana in the Great Lakes**
Journal of Great Lakes Research
 - Authored with Peter Euclide and Jason Stockwell.

🔗 LINKS

- 1: <https://www.nytimes.com/interactive/2016/08/26/us/college-student-migration.html>
- 2: https://livefreeordichotomize.com/2019/06/04/using_awk_and_r_to_parse_25tb/
- 3: <https://github.com/nstrayer/shinysense>
- 4: <http://nickstrayer.me/dataDayTexas/>
- 5: <https://tiroger.github.io/2020-01-06-Stats-Bootcamp/>
- 6: https://rpubs.com/confrench33/text_analysis_R

7: rstudio.cloud
8: <https://github.com/GC-DRI>
9: <https://github.com/GCDigitalFellows/workr>
10: <https://github.com/GCDigitalFellows/workr>
11: <https://github.com/GCDigitalFellows/workr>
12: <https://github.com/GCDigitalFellows/workr>
13: <https://connor-french.github.io/intro-pop-structure-r/>
14: <https://github.com/GCDigitalFellows/intro-r/blob/master/frontmatter.md>
15: <https://connor-french.github.io/intro-pop-structure-r/>
16: <http://benhaller.com/workshops/workshops.html>
17: <https://github.com/GCDigitalFellows/workr>
18: <https://github.com/GCDigitalFellows/workr>
19: <https://livefreeordichotomize.com/>
20: <https://livefreeordichotomize.com/2017/09/25/the-traveling-metallurgist/>
21: <https://www.sciencemag.org/news/2017/06/great-paper-swipe-right-new-tinder-preprints-app>
22: <https://jhubiostatistics.shinyapps.io/papr/>
23: <https://www.nature.com/news/swipe-right-for-science-papr-app-is-tinder-for-preprints-1.22163>
24: <https://www.uvm.edu/uvmnews/news/deeper-story-data>
25: <https://www.nytimes.com/interactive/2016/08/26/us/college-student-migration.html?smid=pl-share>
26: <https://www.nytimes.com/interactive/2016/07/25/us/wildfire-seasons-los-angeles.html>
27: <https://www.nytimes.com/2016/07/26/upshot/democrats-may-not-be-unified-but-their-convention-speakers-are.html>
28: <https://www.nytimes.com/2016/07/19/upshot/whos-not-speaking-how-this-republican-convention-differs.html?smid=pl-share>
29: <https://www.nytimes.com/interactive/2016/07/14/world/europe/trail-of-terror-france.html>
30: http://nickstrayer.me/rstudioconf_sbmc
31: <https://tbilab.github.io/sbmR/>
32: <https://academic.oup.com/bioinformatics/advance-article-abstract/doi/10.1093/bioinformatics/btaa870/5922817?redirectedFrom=fulltext>
33: https://prod.tbilab.org/phewas_me_info/
34: <https://www.ncbi.nlm.nih.gov/pubmed/30419234>
35: http://nickstrayer.me/rstudioconf19_me-poster/
36: http://nickstrayer.me/biostat_seminar/
37: http://nickstrayer.me/qualifying_exam/
38: <https://www.semanticscholar.org/paper/An-Agent-Based-Model-of-the-Diel-Vertical-Migration-Strayer-Stockwell/40493c78e8ecf22bd882d17ec99fd913ec4b9820>