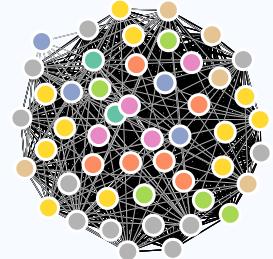


SAM HILLMAN

PhD researcher with a passion for delivering insights from data. Currently focused on social network analysis and statistical modelling in R, but keen to learn new analysis techniques and technology. Particularly interested in data cleaning, validation, and analysis pipelines, and gaining experience with Shiny and SQL. My previous career in sales and recruitment has given me experience in stakeholder and relationship management, and I enjoy working with both technical and non-technical teams.



↗ SKILLS

Data Analysis: R (proficient), Python (familiar), SQL (beginner)

Data Visualisation: ggplot2 (proficient)

Scripting: Bash (proficient), Powershell (beginner), LaTeX (beginner), RMarkdown (proficient)

Statistical Techniques: Linear mixed effects modelling, linear and logistic regression, network modelling, model simulation

OS: Windows (expert), Linux (proficient)

Version Control: Git (proficient)

Soft Skills: extensive sales and stakeholder management experience, experienced in explaining technical concepts to non-technical colleagues

View this CV online with links at
samhillmancv.com

🎓 EDUCATION

current
|
2019

- **PhD. Candidate, Ecology and Evolutionary Biology** University of Edinburgh 📍 Edinburgh
 - PhD on "The impact of resource distribution and quality on wild mouse contact networks, parasite infection, and transmission". Combining field work with social network analysis, simulation studies, and statistical and mathematical modelling.

2019
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2015

- **BSc. (Hons) Ecology with a Placement Year** Cardiff University 📍 Cardiff
 - Specialising in Infection Biology and Epidemiology, Systems Biology and Modelling, and Global Change Biology. Awarded prize for best dissertation research.

💻 RESEARCH EXPERIENCE

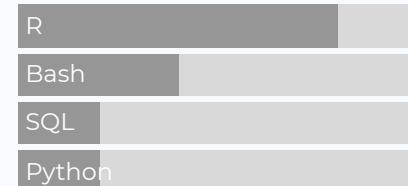
current
|
2019

- **PhD Researcher** Pedersen Group, University of Edinburgh 📍 Edinburgh
 - "The impact of resource distribution and quality on wild mouse contact networks, parasite infection, and transmission".
 - Using novel biologging equipment developed by collaborators at the University of Oxford to track wild mouse movement and contacts, and using generated data to analyse social networks, space use, and parasite transmission.
 - Main packages: dplyr, ggplot2, glmmTMB, igraph, tidygraph, ggraph

CONTACT

- ✉ sghillman@gmail.com
🐦 [@SamHillman](https://twitter.com/@SamHillman)
🔗 github.com/samhillman
🔗 samhillman.com
🔗 [in samghillman](https://in.samghillman)

LANGUAGE SKILLS



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

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

Last updated on 2021-10-31.

2019
|
2018

- **Undergraduate Researcher**
CRIPES Group, Cardiff University 📍 Cardiff
 - Dissertation research project with Dr. Jo Lello on the effect of endemic co-infection on disease transmission of epidemic parasites. Working in a laboratory system with German cockroaches as a model organism and using collected data to build statistical models of disease transmission.
 - Dissertation: Low levels of endemic parasite infection reduce the transmission potential of epidemic parasites in co-infected individuals
 - Main packages: dplyr, ggplot2, coxme, multcomp, glmmTMB
- **Research Assistant**
Ezenwa Lab, University of Georgia 📍 Georgia, USA
 - Placement year as a Research Intern with Professor Vanessa Ezenwa, working on an independent project on “The effects of anthelmintic treatment on non-target parasites in wild rodents” and assisting on a project on the causal relationship between personality and parasitism in wild rodents.
 - Work included extensive trapping and handling of wild cotton rats and administration of behavioural assays, administration of anthelmintic drugs, collection of blood and faecal samples, and the processing and reading of faecal samples for parasite egg and oocyst intensity counts. Completed dissection and extraction of GI tract parasites and statistical analysis with R.
 - Main packages: dplyr, ggplot2, glmmTMB
- **Research Assistant**
CRIPES Group, Cardiff University 📍 Cardiff
 - Awarded a Cardiff CUROP grant to work as a summer student research assistant, working on ‘Investigating the effect of temperature on the in vitro growth rate of the oomycete Saprolegnia parasitica’. Focused on samples from Welsh salmonid species and worked with Salmon and Brown Trout. ImageJ used for automatic and manual image processing of fungal growth rates and R for data analysis. Wrote macros for automatic image analysis and used R and Tidyverse packages for data processing and analysis.
 - Main packages: dplyr, tidyverse, ggplot2, glmmTMB

2018
|
2017

- ## 💼 INDUSTRY EXPERIENCE
- **Research Data Steward**
Research Data Service, University of Edinburgh 📍 Edinburgh
 - Archiving research data and code, working with researchers on long-term data storage solutions.

current
|
2021

2021
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2021

- **Data Scientist**
The Data Lab - Innovation Centre 📍 Edinburgh
 - PhD work placement, working for 3 months to help analyse financial data for a startup and incubator-related company. Worked under NDA conditions.
 - Used various APIs to retrieve financial data as well as R for cleaning and analysis.
 - Main packages: httr, dplyr, tidyr, ggplot2.

2017
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2016

- **Clinical Trials Administrator**
Wales Cancer Trials Unit 📍 Cardiff
 - Responsible for gathering and analysing confidential patient clinical data and establishing trends and patterns with data managers and statisticians. Part-time during studies.

2016
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2016

- **Data Researcher and Administrator**
Chartered Institute of PR, Wales 📍 Remote
 - Consultant for the Chartered Institute of Public Relations Wales, working on data and database administration under strict NDA conditions. Part-time during studies.



TEACHING EXPERIENCE

current

- **Mentoring and Supervision**
University of Edinburgh 📍 Edinburgh
 - Supervised and mentored two undergraduate researchers working on final year Honours dissertation research, teaching statistics and R. Hired and supervised two research assistants for 2021 field season. Mentored NERC REU summer research intern.

2021

- **Principles of Ecology**
University of Edinburgh 📍 Edinburgh
 - Teaching various field skills and data analysis in R to undergraduates

2021

- **Field Ecology**
University of Edinburgh 📍 Edinburgh
 - Teaching various field skills and data analysis in R to undergraduates

2020

- **Genomes and Genomics**
University of Edinburgh 📍 Edinburgh
 - Primarily focused on teaching genomics, helping teach Linux, bash, and command-line tools as well as wet-lab skills.

I am passionate about teaching and enjoy teaching complex concepts. During my PhD I work as a demonstrator (Teaching Assistant), assisting undergraduate students with statistics, laboratory practical work, computational methods, and field work

2020

- **Evolution in Action**
University of Edinburgh  Edinburgh
 - Assisting with undergraduate practicals, focused on computational methods in genetics

SELECTED PUBLICATIONS, POSTERS, AND TALKS

2021

- **Paper: Effects of anthelmintic treatment on target and non-target parasites in cotton rats**
In prep
 - Paper on dynamics of within-host parasite communities in wild wood mice.
 - Used mixed-effects models (GLMMs) in R

2021

- **Paper: Impact of supplemental resources on space use and contact network structure in wild wood mice**
In prep
 - Paper on space use, social network, and contact network structure in a wild population of wood mice
 - Used social network analysis and mixed-effects models (GLMMs) in R

2021

- **Paper: Effect of weather and climatic variables on trapping success of small mammals**
In prep
 - Paper on the effects on weather and climate variables on trapping success in wild small mammals
 - Used machine learning (random forest) for feature / variable selection in R

2021

- **Where the wild mice are: combining multiple data sources to test how resource distribution changes space-use and contact networks**
ASAB Easter Meeting 2021
 - Contributed talk for The Association for the Study of Animal Behaviour Spring Meeting

2021

- **Where the wild mice are: combining multiple data sources to test how resource distribution changes space-use and contact networks**
EEID 2021
 - Poster presentation for the Ecology and Evolution of Infectious Disease annual conference

2020

- **The effects of resource distribution on parasite transmission**
BSP 2020
 - Poster presentation for the British Society For Parasitology annual conference

- 2020
- Using both proximity loggers and capture-mark-recapture methods to determine if resource availability and distribution changes space use, movement, and contact network structure in wild wood mice
 - BES 2020
 - Poster presentation for the British Ecological Society annual conference
- 2019
- Does resource availability change movement, contact network structure, and potential for parasite transmission in wild wood mice?
 - BES 2019
 - Poster presentation for the British Ecological Society annual conference
- 2018
- Effects of anthelmintic treatment on target and non-target parasites in wild rodents
 - BES 2018
 - Poster presentation for the British Ecological Society annual conference
- 2018
- The effects of anthelmintic treatment on non-target parasites in wild rodents
 - EEID 2018
 - Poster presentation for the Ecology and Evolution of Infectious Disease annual conference
- 2018
- The effects of anthelmintic treatment on non-target parasites in wild rodents
 - CEID 2018
 - Center for the Ecology of Infectious Diseases Member Retreat, Georgia, USA

⌚ AWARDS

- 2021
- Davis Expedition Fund
 - University of Edinburgh 📍 Edinburgh
 - Awarded £7500 grant from the Davis Expedition Fund to fund two research assistants for my 2021 field research
- 2019
- Centenary Prize
 - Cardiff University 📍 Cardiff
 - Awarded for best Biological Sciences Final Year Research Project
- 2018
- Certificate of Merit
 - Cardiff University 📍 Cardiff
 - Awarded by Cardiff University for high academic achievement during my placement year at the University of Georgia

- 2017
- **Professional Training Year (PTY) Bursary**
Cardiff University 📍 Cardiff
 - Awarded £600 bursary for Professional Training Year (PTY) work at the University of Georgia.
- 2017
- **CUROP Research Grant**
Cardiff University 📍 Cardiff
 - Awarded Cardiff Undergraduate Research Opportunities Programme (CUROP) grant to work on investigating the effect of temperature on the in vitro growth rate of the oomycete *Saprolegnia parasitica*. Grant worth £1600.

TRAINING

Network analysis in R, Physalia Courses, 2021

Contact Network Epidemiology, University of Washington, 2021

Spatial Statistics in Epidemiology and Public Health, University of Washington, 2021

Mathematical Models for Infectious Disease Dynamics, Wellcome Trust, University of Cambridge, 2021

Linux for Genomics, University of Edinburgh, 2020

Social Networks Analysis Workshop, Max Planck Institute for Ornithology, 2019

Assessing the Environment course (including GIS), Cardiff University, 2018

Computational Modelling workshop, University of Georgia, 2018

R Programming and Statistics with R, Datacamp, 2018

Data Manipulation with R and Intermediate R, Datacamp, 2017

Python for Data Science, Datacamp, 2017

Good Clinical Practice (Primary Care) Certification, NICE, 2016