


# ALISTAIR BAILEY

I am a researcher at the Centre for Proteomic Research and Cancer Sciences Unit at the University of Southampton. My research interests are in antigen processing and presentation by class I MHC molecules, data science and proteomics. The project I currently work on aims to improve immunotherapy treatment for cancer patients. I also contribute to research into the role of MHC molecules in skin sensitization to chemical allergens, and contagious cancer in the Tasmanian Devil. I am also a Data and Software Carpentry instructor.

## EDUCATION

- Data Science Specialization**  
John Hopkins University  Coursera  
2016 | 2015
  - 12 month online set of courses on data science using R, git and command line tools.
- Machine Learning**  
Stanford University  Coursera  
2016 | 2016
  - 10 week online introduction to machine learning.
- PhD, Immunology**  
Cancer Sciences, University of Southampton  Southampton, UK  
2013 | 2008
  - Thesis: Relating the structure, function and dynamics of the MHC Class I antigen presenting molecule.
- BEng, Civil Engineering**  
University of Southampton  Southampton, UK  
2008 | 2005
  - First Class Honours in Civil Engineering.
- Engineering, Science & Mathematics Foundation Year**  
University of Southampton  Southampton, UK  
2005 | 2004
  - Maths and physics foundation year preparation for undergraduate study.
- BTEC ND Audio-Visual Production**  
Bournemouth & Poole College of Art & Design  Bournemouth, UK  
1994 | 1992
  - Foundation course in film, photography, TV and radio production.





## RESEARCH EXPERIENCE

- Undergraduate Researcher**  
Rubenstein Ecosystems Science Laboratory  University of Vermont  
2015 | 2013
  - Analyzed and visualized data for CATOS fish tracking project.

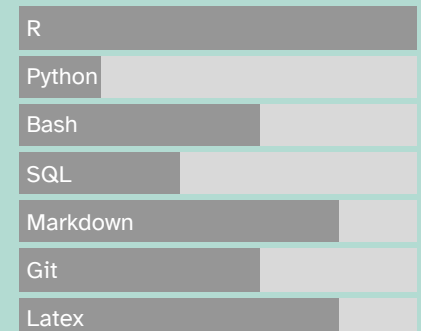


View this CV online with links at [nickstrayer.me/datadrivencv/](https://nickstrayer.me/datadrivencv/)

## CONTACT



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 [alistair604](https://twitter.com/alistair604)  
 [github.com/ab604](https://github.com/ab604)  
 [ab604.uk](https://www.linkedin.com/in/ab604)



## LANGUAGE SKILLS





Last updated on 2021-08-25.

- 2015  
|  
2015




**Human Computer Interaction Researcher**  
 LabInTheWild (Reineke Lab)  University of Michigan
 
  - Led development and implementation of interactive data visualizations to help users compare themselves to other demographics.
- 2014  
|  
2013


**Undergraduate Researcher**  
 Bentil Laboratory  University of Vermont
 
  - Developed mathematical model to predict the transport of sulfur through the environment with applications in waste cleanup.
- 2013  
|  
2012


**Research Fellow**  
 Adair Laboratory  University of Vermont
 
  - Independently analyzed and constructed statistical models for large data sets pertaining to carbon decomposition rates.

## INDUSTRY EXPERIENCE


- Current  
|  
2020




**Software Engineer**  
 RStudio  Remote
 
  - Helping make programming web applications with R easier and more beautiful on the Shiny team

I have worked in a variety of roles ranging from journalist to software engineer to data scientist. I like collaborative environments where I can learn from my peers.

## TEACHING EXPERIENCE

- 2020


**Javascript for Shiny Users**  
 RStudio::conf 2020
 
  - Served as TA for two day workshop on how to leverage Javascript in Shiny applications
  - Lectured on using R2D3 package to build interactive visualizations.<sup>7</sup>
- 2017  
|  
2017


**Statistical Computing in R**  
 Vanderbilt Biostatistics Department  Nashville, TN
 
  - TA and lectured
  - Covered introduction to R language for statistics applications
  - Graduate level class

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.



## SELECTED PUBLICATIONS, POSTERS, AND TALKS

2017  
|  
2017

### ● **Continuous Classification using Deep Neural Networks<sup>2</sup>**

Vanderbilt Biostatistics Qualification Exam

- Review of methods for classifying continuous data streams using neural networks
- Successfully met qualifying examination standards

2015  
|  
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  
|  
2015

### ● **An Agent Based Model of Mysis Migration<sup>3</sup>**

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.