

PROFILE

I am a [researcher](#), [software engineer](#) and [thought leader](#) for [applied artificial intelligence](#) and [citizen collected data](#).

Additionally, I am an experienced [full stack web developer](#), [technical project manager](#), and [software educator](#) whose main interests are building fantastic technological tools that help people. A keen rower I spend most of my weekends in Bristol harbour with the Cornish Pilot Gig Club.

SKILLS

As an '[agile first](#)' thinker and creative problem solver, I work efficiently and can easily switch between tasks.

Through numerous teaching and outreach roles, I have developed [excellent communication skills](#) and can convey complex concepts to a non-technical audience.

Software/tools that I use:

- Ruby & Rails
- HTML, CSS
- JavaScript & React
- Data visualisation & D3
- Postgres
- Python
- Pandas, Numpy & Pytorch
- Jira & Confluence
- Figma
- Heroku & AWS
- Git & Github

WORK EXPERIENCE

University College London

Sept 2018 – Sept 2021

[PhD in Citizen Data and Heritage Science](#)

Founded the Monument Monitor project.

Used [machine learning](#) to detect issues at heritage sites using visitors photographs.

Created environmental models to predict the effects of climate change on heritage.

[Devised and implemented syllabus](#) for the inaugural "Citizen Science in Cultural Heritage" MSc module.

Delivered >10 lectures in Citizen and Data Science.

Supervised MSc students and their projects concerning computer vision, machine learning and citizen science.

[Presented at numerous international conferences](#), published two journal articles, and agreed publication of a book chapter.

Monument Monitor

Sept 2019 – Now

Founder

Developed three year [product roadmap](#).

Utilised [agile](#) development practices, with scheduled sprints and retrospectives.

Built data aggregation platform (Rails, React, Postgres, AWS).

Trained machine learning models to categorise image data (Python, Pytorch).

[Prioritised](#) functional and non-functional product [requirements](#) via [stakeholder review sessions](#).

Established product for non-development related 3rd parties.

Freelance

April 2014 – Sept 2018

Facilitator and technical educator

Freelance teacher and facilitator for technical education companies such as [Code First: Girls](#), Decoded and SuperHi.

Delivered one-off technical workshops on web development, evening courses for [CodeFirst: Girls Professionals](#).

[Developed and updated](#) the [CodeFirst: Girls](#) curriculum in line with evolving engineering practices.

Soho House

Sept 2017 – August 2018

Ruby Engineer

[Led and co-ordinated](#) GDPR compliance rollout in collaboration with legal team.

Working in 2 week sprints, developed custom APIs for membership processing.

Responsible for updating and maintaining 56 legacy sites.

Worked through 27 sprints covering 6 major releases

Enspiral Developers Academy

March – Sept 2016

Lead Facilitator

Delivered content for a 12 week developer bootcamp in Wellington, New Zealand.

[Product development](#) – created new curriculum (NodeJS, React).

Mentored students through bootcamp process.

Trained students in public speaking and interview skills.

[Managed team](#) of teaching assistants.

Scheduled lectures and key speakers.

AWARDS

Professor Sir Malcom Grant Scholarship

Scholarship of £25,000 to pursue MRes in Heritage Science, awarded in [recognition of outstanding leadership skills](#)

REKREI Scholarship

Award of £1,000 to attend international conference in Japan to present MRes research

EPRSC Training Bursary

Award of £250 to enrol in 'Data Visualisation' course specialising in D3 and web technologies

EPSRC Development Funding

Award of £29,000 EPSRC 'discovery-to-use' funding to establish Monument Monitor project within national heritage organisation.

OUTREACH

Heritage Science Hackathon

[Co-founded event](#) to unite unfunded heritage organisations and technologists. The [successful](#) event led to £10,000 of follow on funding for project development

Researc/Hers

Designed and led 'Introduction to Git and Github' course for London based researchers identifying as female

Société Générale

Created a software development crash course for leading investment bank to demystify web technology and improve access for women in finance

Wool and the Gang

April 2014 – Jan 2016

Full stack developer

[Full stack developer](#) for e-commerce startup (Rails, Ruby, Postgres, Heroku AWS). Worked with CTO to co-ordinate monthly special offers and campaigns. Planned, created and implemented numerous elements of [new functionality](#). Scoped, planned and developed numerous technical projects for the business. Mentored interns and delivered workshops to the company to increase in-house understanding of technical architecture.

Funding Circle

Jan – April 2014

Technical Internship

A 12 week web development bootcamp that taught the basics of Ruby, Rails, HTML & CSS, JavaScript, Heroku and [Agile](#).

PUBLICATIONS / SPEAKING EVENTS

Published

Brigham, R. Wilson, L. Frost, A. Barwinski. M, Griffin. L, Strlic, M. Grau-Bove, J. 'The Monument Monitor Project; Combining Citizen Science and Heritage' (2020) ICOM-CC Preprints

Brigham, R. Grau-Bove, J. Rudnicka, A. Cassar, M. Strlic, M. 'Crowdsourcing as an Analytical Method: Metrology of Smartphone measurements in Heritage Science' (2018) [Angewandte Chemie](#)

Conferences

'Heritage in the age of Artificial Intelligence' Association of Critical Heritage Studies, 2020

'Monitoring remote heritage with your photos', ICON Twitter conference, 2019

Discussion on heritage tech with John Beattie, [BBC Radio Scotland](#), 2019

'Potential methodologies to crowdsource conservation monitoring' Digidoc 2018, Stirling

'Crowdsourcing conservation: potential long term issues' RENKEI Open Cultural Heritage Conference 2017, Kyoto

[Expert panel member](#) for 'Diversity in Tech, Homegrown Talent', London Tech Advocates Conference, 2017

EDUCATION

University College London

Sept 2016 – Sept 2018

MRes Heritage Science and Engineering, [Distinction](#)

Established Monument Monitor proof of concept. Invited to speak at an international conference in Japan. Published in highly regarded scientific journal.

University College London

Sept 2010 – June 2013

BA History of Art with Material Studies, 2:1