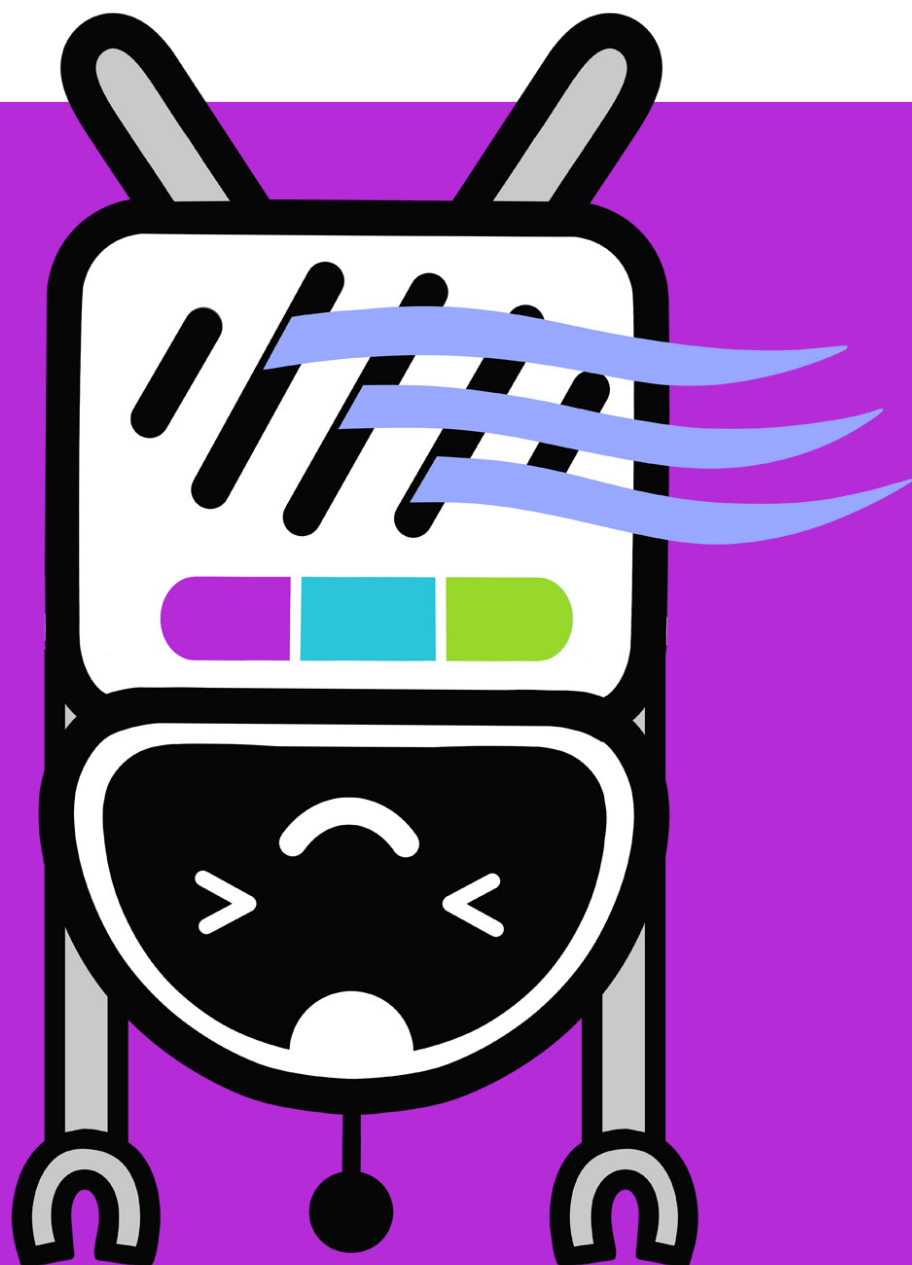


A day in the life of the SAMHE Team

Careers resource



Introduction	3
Dr Rhys Archer Research Fellow in Citizen Science	4
Victoria Beale Communications Specialist	6
Sam Bland Technical Specialist Software Developer	8
Dr Henry Burridge Senior Lecturer in Environmental Fluid Mechanics	10
Dr Carolanne Vouriot Lecturer in Building Physics	12
Guozhong (Douglas) Wang Software developer	14
Lucy Way Project Coordinator	16
Professor Sarah West Centre Director and Professor of Citizen Science	18
Dr Sam Wood Post-doctoral researcher associate	20
Acknowledgements	22

Introduction

The SAMHE project is made up of people from a range of different universities and organisations. They each have a specific role in the project, based on their varying expertise and experience. In this booklet, we have collected interviews from the team, where they talk about their daily life, career path, and advice to others who would like a career like theirs. Meet more members of the SAMHE team, executive board and steering group on our Meet the [Team page](#) and find out how your school can [get involved in the SAMHE project](#).

About SAMHE

SAMHE (pronounced 'Sammy'!) stands for Schools' Air quality Monitoring for Health and Education and brings together scientists, pupils and teachers. SAMHE is establishing a network of air quality monitors in schools across the UK, to generate an unparalleled dataset which will help researchers better understand schools indoor air quality. Our overall aim is to understand and improve long-term air quality for all schools.

Through SAMHE, schools receive a free high spec air quality monitor that measures carbon dioxide (CO₂), volatile organic compounds (VOCs), particulate matter (PM), temperature, and relative humidity. Teachers and pupils can access their data through a specially designed interactive Web App, seeing how air quality changes over the course of hours, days or weeks and months. The Web App also offers a range of related activities and experiments, creating opportunities for pupils to be scientists and do hands-on experiments with their monitor.



To find out more about SAMHE, visit the SAMHE website www.samhe.org.uk

Dr Rhys Archer

Research Fellow in Citizen Science

Describe your role in two sentences:

I conduct research on Citizen Science, sometimes this means facilitating Citizen Science projects, sometimes it means thinking about how Citizen Science is done and producing research into the methods. On the SAMHE project, I create school resources and think about how we include teachers and pupils in the research method.

Who do you work for?

I work for the Stockholm Environment Institute (SEI) at The University of York. SEI is an international non-profit research and policy organisation that tackles environment and development challenges.

What do you do in a typical day?

Every day is different! Some days I will be meeting with members of the public who are involved with our Citizen Science projects, sometimes I will be spending the day thinking about our Citizen Science projects, including SAMHE, and meeting with other partners involved (from nonprofits and charity groups), and how the process can be more effective and inclusive. I spend time writing about Citizen Science for both public audiences and the research community to share our learnings. I also contribute to our centre through coordinating the Citizen Science Research group, which involves talking to other researchers about the projects they are involved in.

What do you love about your job?

Being a Citizen Science researcher means that not only do I get to be involved in research projects on a range of topics, but that I also get to communicate directly with the people that the research impacts the most, and create ways for those people to have their voices heard.

How did you get into your current role?

I studied Materials Science and Engineering at University, and then completed a PhD and post doctoral fellowship in Materials Engineering. Whilst I was studying, I was involved in Science Communication, and started a campaign on Women in STEM. I always felt that rather than be a lab scientist or engineer, I wanted to change the way that scientific research itself is done,

and make it more accessible to the public - that's why I then applied to work as a Research Fellow in a Citizen Science project at SEI!

What did you want to be when you were 11?

I'm neurodivergent, and so I have always wanted to do everything! Here is a list of the different jobs I've wanted:

- Famous waitress who cycles around the world (my parents particularly laugh at me for this one!)
- Astronaut
- Scientist
- Fashion Designer
- Author

As you can see, I have really varied interests, which is why this role really suits me!

What do you like to do in your spare time?

I tend to have lots of hobbies that I pick up then drop! I like to climb, and spend time in the Peak District. I am also an avid gamer, and like to play on my PC, Switch, and Playstation. I also enjoy creative hobbies, so drawing, knitting, embroidery, and sewing. And I'm also a sucker for a good crossword puzzle.

What is your top tip for a young person who would like a job like yours?

I never thought I could find a job that included my different interests - for me subjects at schools were too restrictive, I wanted to do everything! Now, I get to write, do science, speak in public, use creativity, work closely with lots of different people, and teach, whilst also having a positive impact on people and the world around me. So my advice is, keep doing things that you are interested in, it will give you a unique set of skills and perspective on your work that others will find really valuable.

Victoria Beale

Communications Specialist

Describe your role in two sentences:

I design and deliver communication plans for research projects; for SAMHE this includes designing, creating and editing material for our communications channels such as the SAMHE website, newsletter, posters, emails, information sheets and social media accounts, and also for external websites and publications. I also support the SAMHE Engagement Panel - a group of people from government, industry, NGOs etc who are involved in air quality work or policy and who come together to support the project.

Who do you work for?

I work for the Stockholm Environment Institute (SEI) at The University of York. SEI is an international non-profit research and policy organisation that tackles environment and development challenges. I'm currently working mainly on the SAMHE (Schools' Air quality Monitoring for Health and Education) research project, which is being delivered in collaboration with several other UK universities and agencies.

What do you do in a typical day?

Every day is different! Some days I'm writing content and selecting images for the SAMHE website and posting on the project's social media accounts, or writing articles for newsletters or magazines. Other days I'm designing a poster, leaflet or set of stickers, or editing video footage. Sometimes I'm emailing or meeting with people interested in supporting the project or helping us get the message out to schools. Most days I have at least one or two meetings, either with other members of the project team or other researchers and research support staff in SEI or the wider university. These are to help us work together, plan and evaluate our strategy or share ideas, knowledge and resources.

What do you love about your job?

I love working with layouts to design eye-catching and informative products like posters and newsletters. This year I really enjoyed working with a graphics company to create an animated video introducing a research project on indoor air quality.

How did you get into your current role?

Through a very roundabout route! I studied science and got a masters degree in Wildlife Management. I worked as a wildlife scientist for a conservation charity in Portugal before taking up a role as an environmental scientist employed by the Church of Scotland. I stopped paid work for a time when my kids were very small and then took some part time roles in project facilitation and administration while they were in primary school. All those varied jobs involved communications to some degree and I discovered that that was the aspect I enjoyed most. I worked part time as a communications officer for my village church, building up my skillset and experience, and applied for several communications jobs at the University of York before getting my current role with SEI.

What did you want to be when you were 11?

I wanted to be an olympic downhill skier! Or an author.

What do you like to do in your spare time?

I love to sing and act and I perform opera and musical theatre with two local amateur dramatic groups. I also really enjoy being outdoors and get out for a birdwatching walk most weeks and and plan holidays that involve mountain climbing, kayaking, rafting and other adventure activities. When I have a free evening I'm also very happy to join my family on the sofa eating chocolate and watching films or get together with friends to play board games.

What is your top tip for a young person who would like a job like yours?

It's easier to communicate effectively about a subject that you have some knowledge of, and the work is more interesting if you care about that subject too! If you want to get into science communication, I suggest studying an area of science that interests you and developing your communication skills on the side or afterwards. Some science courses at university include science communication as one of the modules you can take, but that's not essential to getting into this area of work.

Sam Bland

Technical Specialist Software Developer

Describe your role in two sentences:

I write code that makes websites and computer models work. As the N8CIR RSE theme lead I'm also responsible for building the N8CIR community of research software engineers, and on the SAMHE project I am responsible for building parts of the website and the SAMHE Web App.

Who do you work for?

I work for the Stockholm Environment Institute (SEI) at The University of York. SEI is an international non-profit research and policy organisation that tackles environment and development challenges. I also work for the N8CIR that is a centre for excellence with the aim of promoting the use of computation in research across the N8 universities.

What do you do in a typical day?

Working with software requires being organised so I like to start my working day by organising and prioritising my tasks. This is particularly important when working across lots of different projects in research. Writing code often requires setting up your "coding environment". This could involve starting up a preview of the website you're working on or opening the programs that help you write code. Fortunately, as software developers we can automate a lot of these tasks! Once I'm set up and I've got some good music running I'm ready to start writing some code. Like the start of the day I try to end my day with a little organising by writing a log of what I have been working on and what I still need to do. This makes starting the next day much easier!

What do you love about your job?

Solving problems with code can be a very challenging but rewarding experience. There are always opportunities to learn and get better at the role.

How did you get into your current role?

I actually studied architectural design at university and went on to do a Masters in Architecture where I used code to help design buildings and cities. I enjoyed writing the code so much I decided to pursue it as a career instead of architecture.

What did you want to be when you were 11?

When I was 11 I wanted to work for Pixar to create 3D animations. I even spent a few years out of architecture working for a CGI company but decided I wanted to find something more focused on design and engineering.

What do you like to do in your spare time?

If I'm not writing code for my own projects I can normally be found climbing either indoors on rainy days or in the gritty crags of Yorkshire.

What is your top tip for a young person who would like a job like yours?

I recommend trying lots of things out. It's impossible to really know what you want to do when you're first starting out on your career and there are so many options. Software development is easy to learn the basics of and can be applied to many subjects so the best thing to do is to just get stuck into projects.

Dr Henry Burrige

Senior Lecturer in Environmental Fluid Mechanics

Describe your role in two sentences:

My role has two main parts. Firstly, I teach students who are studying for their degree at university about how liquids and gases - often water and air - can help create healthy sustainable societies through better civil engineering. Secondly, I do research to help us better understand the improvements that can be made, and to get evidence as to what works well - school air quality research is a big part of this and in the last few years helping bring the SAMHE project together has been a favourite for me.

Who do you work for?

I work for a university called Imperial College London.

What do you do in a typical day?

Sometimes I work at home to do my research, which involves some maths & computing but also lots of meetings with other researchers, and sometimes I travel into London to teach and to meet researchers and students.

What do you love about your job?

I like solving problems, but most of all, I like helping other people to solve problems.

How did you get into your current role?

By accident! I finished university and accidentally got a job working in finance - 8 years later, I wanted to be an engineer and needed to go back to university, where I did a research degree and decided that I wanted a career in research and teaching.

What did you want to be when you were 11?

I had no idea, I think I was mainly confused about what I wanted - being neurodiverse probably did not help. I guess I was just happy to be an 11 year old!

What do you like to do in your spare time?

I walk my dog every morning and I swim/cycle most days. Otherwise, I spend a lot of time with my children, often taking them places.

What is your top tip for a young person who would like a job like yours?

Relax and don't rush - learning is a process and you need to enjoy that process, but always try things that you think are too hard, sometimes you'll realise they're not too hard for you and that will help you find your niche.

Dr Carolanne Vouriot

Lecturer in Building Physics

Describe your role in two sentences:

I work as a lecturer in a university which means I do both research and teaching - my research focuses on ventilation and indoor air quality, and I also teach architectural engineers. In the SAMHE project, I help analyse the data we get on indoor air quality and I also create activities for the Web App and scientific content for the website.

Who do you work for?

I work for the University of Sheffield, in the Department of Civil and Structural Engineering.

What do you do in a typical day?

It depends! Some days I will be preparing and delivering lectures or I will be attending tutorials and workshops. I can also work on research, do some programming or write papers that will be published in scientific journals.

What do you love about your job?

I really enjoy learning new things and that's a big part of doing research.

How did you get into your current role?

I'm still pretty new to my job, I started in September 2023! I first studied Aeronautical Engineering and then did a PhD in Civil Engineering working on modelling natural ventilation. While working as a researcher in Cambridge, I applied to work as a lecturer in Sheffield, and here I am!

What did you want to be when you were 11?

I went through a few different phases, including wanting to be an archaeologist, a history teacher and finally an engineer!

What do you like to do in your spare time?

I like to try out lots of new and different activities. I played rugby for many years and then gave rowing a go when living in Oxford. Since moving to Sheffield, I have started to go bouldering more regularly and I hope to be able to get out to the Peak District soon.

| What is your top tip for a young person who would like a job like yours?

Don't be afraid to try out new stuff, you never know what you will find out and you might discover things that you enjoy doing.

Guozhong (Douglas) Wang

Software Developer

Describe your role in two sentences:

In my role as a software developer for an environmental research institute, I focus on transforming researchers' concepts into user-friendly and functional tools, so they can be used by a wide audience. My responsibilities encompass the entire software development lifecycle, from concept to design, coding, testing, and ongoing support, with the goal of bridging the gap between research and practical application. On the SAMHE project, I help to implement the changes needed on the SAMHE website and the SAMHE Web App.

Who do you work for?

I work for Stockholm Environment Institute (SEI) at University of York.

What do you do in a typical day?

In a typical day, my activities vary depending on the specific needs of ongoing projects. These activities can include meetings with researchers, designing software, coding, testing, fixing bugs, collaborating with team members, providing technical support etc.

What do you love about your job?

As someone who loves solving problems, I find my job as a software developer incredibly fulfilling. The best part is that every day brings new challenges and puzzles to solve. Whether it's creating innovative solutions, debugging complex issues, or optimising existing software, I enjoy the process of problem-solving. Additionally, the collaborative nature of the job and the opportunity to work with a team of like-minded individuals make the work environment enjoyable and intellectually stimulating.

How did you get into your current role?

I began as an intern at the Stockholm Environment Institute, where I developed the PMEC, a tool for project monitoring and evaluation. After that I got the opportunity to work on other interesting projects, which led to my current role.

What did you want to be when you were 11?

I don't remember what I wanted to be. But it was definitely not a software developer, as we didn't have computers back then (I am from China).

What do you like to do in your spare time?

In my spare time, I enjoy playing video games, and “The Legend of Zelda” is my all-time favourite. I also like watching movies.

What is your top tip for a young person who would like a job like yours?

My top tip for a young person who wants a job like mine is to keep learning and practising. Start by learning how to code and then work on projects that interest you. Stay curious and never stop exploring new technologies. It’s also essential to enjoy problem-solving and be patient, as it often involves a lot of trial and error. Lastly, stay connected with others in the field, as networking can lead to valuable opportunities.

Lucy Way

Project Coordinator

Describe your role in two sentences:

My role as a project coordinator can vary a great deal depending on the project I am working on but my main responsibility is always to help foster collaboration between different team members and work with them. On SAMHE I oversee the whole project to ensure a joined up approach. This includes supporting our deployment team to process school registration, working with admin support staff to troubleshoot any issues reported by schools, coordinating the development of new Web App and website content and lots of other things in between!

Who do you work for?

I work for the Stockholm Environment Institute (SEI) at The University of York. SEI is an international non-profit research and policy organisation that tackles environment and development challenges.

What do you do in a typical day?

Depends on the day! For SAMHE I do a lot of work reviewing and helping test new Web App functionality from our development team to make sure it works as intended and looks good. Other key elements of my job include monitoring and reporting on project progress, assigning tasks to other people in the team and making sure they have the resources they need to complete them and communicating with project stakeholders. I also attend, and organise, lots of meetings to make sure we're thinking about things as a team at the right time to help keep things moving forward and meet our goals.

What do you love about your job?

Each day is different. With a project as big as SAMHE things are changing all the time, so we have to adapt our strategy as we go and constantly reprioritise; it is challenging but also very rewarding!

How did you get into your current role?

A bit of luck; this is my first 'proper' job post-University and SAMHE is my first big project.

What did you want to be when you were 11?

I changed my mind a lot, but I think at 11 I probably wanted to be a vet! Eventually I realised I am too squeamish for that.

What do you like to do in your spare time?

Mostly pretty low key things - I enjoy gardening, embroidery and going on walks. In the summer I spend lots of time outdoors photographing different butterfly species. When I am disciplined enough, I also really enjoy exercising and find it gives me useful headspace.

What is your top tip for a young person who would like a job like yours?

When I was younger I explored lots of different career paths but 'project coordinator' was never a job I really had in mind. For a long time I thought I was going to be a solicitor and I even studied law at university... but it wasn't right for me. Everything I have done up until now has provided me with useful experience, even though it might not have been a straightforward journey. Lots of skills are transferable so even if you haven't taken the most traditional route, don't be put off!

Professor Sarah West

Centre Director and Professor of Citizen Science

Describe your role in two sentences:

I lead a research centre which does research on environmental issues around the world. My own research takes a citizen science approach, which means I work with different groups (schools, community groups, individuals) to involve them in research, and on SAMHE I lead our work with schools.

Who do you work for?

I work for the Stockholm Environment Institute (SEI) at The University of York. SEI is an international organisation researching environment and development challenges, and our York Centre has around 50 staff plus PhD students.

What do you do in a typical day?

My work is very varied as my time is spread across lots of different projects and activities related to running the Centre. On the SAMHE project, where we're working with schools to understand their air quality, I have meetings with teachers to find out what they want from the project and then oversee the work of others in the team to build teachers' needs into our activities. I also meet regularly with partner organisations who are helping us to promote SAMHE - as the more schools we have involved in the project, the more representative the data is (which means the more accurately it reflects the reality of air quality in schools).

What do you love about your job?

I love the variety in my job - every day is different! I love working with different groups of people - school children, environmental community-based organisations, university staff, my PhD students.... I am fascinated by people and I recently qualified as a university coach, which means I spend time talking to colleagues about their goals and support them to achieve their goals.

How did you get into your current role?

I was doing a very boring admin job at York Hospital, funding my way through a Masters in Biodiversity and Conservation at the University of Leeds, and I really needed to get out into the countryside and exercise my body and my mind so I started volunteering for The Conservation Volunteers as an education officer, doing environmental education

with children and young people. A job came up in 2008 at SEI York which was doing environmental citizen science projects with community groups, schools and individuals. I've been there ever since, and in 2019 the role of Centre Director came up and I applied and got it.

What did you want to be when you were 11?

I had no idea. I knew I wanted to do something relating to geography, which was my favourite subject, but that was about it! I always loved reading and learning, so it wasn't a surprise to my family that I ended up in a research organisation. My best friend wrote on my leavers shirt at secondary school that I was going to be a 'tree hugger' and I guess my work sometimes isn't that far off that!

What do you like to do in your spare time?

I love spending time with my family - we like walking, building dens, going on cycle rides, and helping at a lovely local community garden. I am lucky to have a garden and enjoy growing fruit and vegetables - often not very successfully but I get joy from seeing little seedlings pop up, even if they do then get eaten by slugs!

What is your top tip for a young person who would like a job like yours?

Choose subjects that you really love - learning is much easier if it's something you are passionate about. If you want to work in the environment sector and can get a part-time job, work experience or volunteering related to this, that is helpful, but you can pick up knowledge in other ways too, by watching documentaries, listening to podcasts, and reading about environmental issues.

Dr Sam Wood

Post-Doctoral Researcher Associate

Describe your role in two sentences:

I look at air quality data from SAMHE and other sources and perform scientific analysis. From this I try to build a better understanding of the factors that affect indoor air quality.

Who do you work for?

Imperial College London

What do you do in a typical day?

I write a lot of code to analyse data, and I also do a fair bit of pen-and-paper maths as I try to build new models to help us understand what we're seeing in the data. I write reports and papers and help draft activities for the SAMHE Web App too.

What do you love about your job?

I get some quite difficult and open-ended scientific problems to solve, and I'm free to approach them how I want. This involves a fair bit of reading about other people's work and trying to understand what others have tried, but also a lot of just having a go and seeing what works.

How did you get into your current role?

I studied chemical engineering at uni, then went and worked in the nuclear industry for a bit. Then I came back to do a PhD looking at chemical warfare protection and just sort of meandered into the air quality field.

What did you want to be when you were 11?

Probably a samurai but I don't think I had the right skillset.

What do you like to do in your spare time?

Just a bit of everything really? I never seem to get fixated on one thing for long.

What is your top tip for a young person who would like a job like yours?

Don't stress too much about having your career trajectory right from the start. Most of my friends aren't doing the job they thought they wanted when they were younger, and the ones who are don't always seem the happiest about it.

Acknowledgements

Thank you to the SAMHE team for contributing to this resource. Additionally, thank you to [STEM learning](#) for this template, based on their '[A Day in the Life... Green Careers](#)' resource. Explore their website to find additional resources on [Green careers](#).