

# A career timeline: from academia to the NHS

Dr Lisa Hopcroft

UofG CompBio meet up, October 2024

# Who am I?

- Senior Technical Consultant at [National Service Scotland](#)  
*We provide services and advice to the NHS and wider public sector*
- Building data products for NHS in Scotland via [Seer platform](#)
  - Vaccinations, screening programme data, cancer intelligence data, etc...
  - Data engineering: databases, ETL, data virtualisation, dashboards
  - Increasingly cloud based

# Academic career (on paper)

- **2000-2009: Education**
  - BSc AI & Psychology → MRes Bioinformatics → PhD Bioinformatics
- **2009-2017: Postdoc-ing**
  - short/longer term contracts in University of Glasgow
  - inspirational and very encouraging mentor (Prof Tessa Holyoake)
  - good publication record (✨Nature paper✨)
- **2017-2018: Research fellow**
  - won two research fellowships (5 years)
  - money for PhD students and staff

# Academic career (behind the scenes)

I felt...

- No conscious career decisions 
- One (undesirable) career trajectory 
- Didn't want to give up  for  
- Didn't know what else I could do
- Half hearted job apps had failed

# Academic career (behind the scenes)

## I felt...

- No conscious career decisions 🎨
- One (undesirable) career trajectory 🚀
- Didn't want to give up 🔨 for 💡 💰
- Didn't know what else I could do
- Half hearted job apps had failed

## But...

- I enjoyed collaborative work 👩‍🔬👨‍💻👩‍🔬
- I enjoyed communication 💬📊📝
- Drip feed of rewards 📈💰🥇
- ...
- I didn't *HATE* it all the time 😊



**Lisa Hopcroft** @LisaHopcroft · Mar 9, 2018  
At Busby Primary School today with my felt cell babies.



# ...followed by a realisation...

- Spent 18 weeks teaching in Paisley as part of PGDE



- I enjoyed the actual teaching...and I was good at it
- I did not enjoy much else (📄📄📄📄📄, 🎙️, 👤👤👤👤👤...)
- I really, really, really missed the data and the coding 💻

# So what now?

## I could have felt...

- that I'd failed as an academic
- that I'd failed as a teacher
- embarrassed that I was wrong

## But...

- I *knew* teaching wasn't for me
- I *knew* I enjoyed collaborating 
- I *knew* I enjoyed communication 
- I *knew* I loved data and coding 



Public Health Scotland ✅  
@P\_H\_S\_Official

...

We're recruiting for a Principal Information Analyst to lead a team to develop, compile and present important statistics to a wide audience.

For more information and to apply go to: ►  
[apply.jobs.scot.nhs.uk/Job/JobDetail?...](http://apply.jobs.scot.nhs.uk/Job/JobDetail?...)

#PHSJobs

The image shows a job advertisement card with a white background and four colored triangular corners: purple on the top-left, blue on the top-right, teal on the bottom-right, and magenta on the bottom-left. The text is centered on the white area.

**We are hiring!**

**Principal Information Analyst**

**In a data driven world, nothing is more critical than finding out exactly what is going on around you.**

**Help us tell that story through harnessing the power of data.**

**Closing date: 8 May 23**

**Public Health** **Scotland**

# 2019-2021: Public Health Scotland

- Generic recruitment round for Principal Information Analysts
- They were looking for someone with R skills and familiarity with clinical research
- Work/life balance was hugely improved (discovered flexi time is a thing 😊)
- Freedom to design and build a robust system to report on clinical trials - [R package on Github](#)



**Ben Goldacre**   
@bengoldacre

...

## EPIDEMIOLOGIST JOB ON [@OPENSAFELY](#)

We want one more great, straightforward epidemiologist. You don't need to be a Python/GitHub ninja (tho it helps) we'll train you like many before.

Grade 8... 7's welcome to apply... Email me for chat if u r more senior

Article

# Factors associated with COVID-19-related death using OpenSAFELY

---

<https://doi.org/10.1038/s41586-020-2521-4>

---

Received: 15 May 2020

---

Accepted: 1 July 2020

---

Published online: 8 July 2020

Elizabeth J. Williamson<sup>1,6</sup>, Alex J. Walker<sup>2,6</sup>, Krishnan Bhaskaran<sup>1,6</sup>, Seb Bacon<sup>2,6</sup>, Chris Bates<sup>3,6</sup>, Caroline E. Morton<sup>2</sup>, Helen J. Curtis<sup>2</sup>, Amir Mehrkar<sup>2</sup>, David Evans<sup>2</sup>, Peter Inglesby<sup>2</sup>, Jonathan Cockburn<sup>3</sup>, Helen I. McDonald<sup>1,4</sup>, Brian MacKenna<sup>2</sup>, Laurie Tomlinson<sup>1</sup>, Ian J. Douglas<sup>1</sup>, Christopher T. Rentsch<sup>1</sup>, Rohini Mathur<sup>1</sup>, Angel Y. S. Wong<sup>1</sup>, Richard Grieve<sup>1</sup>, David Harrison<sup>5</sup>, Harriet Forbes<sup>1</sup>, Anna Schultze<sup>1</sup>, Richard Croker<sup>2</sup>, John Parry<sup>3</sup>, Frank Hester<sup>3</sup>, Sam Harper<sup>3</sup>, Rafael Perera<sup>2</sup>, Stephen J. W. Evans<sup>1</sup>, Liam Smeeth<sup>1,4,7</sup> & Ben Goldacre<sup>2,7</sup>✉

17 million patient records analysed in 2.5 months? 😍

Working in Python with software developers? 😍

Article

# Factors associated with COVID-19-related death using OpenSAFELY

---

<https://doi.org/10.1038/s41586-020-2521-4>

---

Received: 15 May 2020

---

Accepted: 1 July 2020

---

Published online: 8 July 2020

Elizabeth J. Williamson<sup>1,6</sup>, Alex J. Walker<sup>2,6</sup>, Krishnan Bhaskaran<sup>1,6</sup>, Seb Bacon<sup>2,6</sup>, Chris Bates<sup>3,6</sup>, Caroline E. Morton<sup>2</sup>, Helen J. Curtis<sup>2</sup>, Amir Mehrkar<sup>2</sup>, David Evans<sup>2</sup>, Peter Inglesby<sup>2</sup>, Jonathan Cockburn<sup>3</sup>, Helen I. McDonald<sup>1,4</sup>, Brian MacKenna<sup>2</sup>, Laurie Tomlinson<sup>1</sup>, Ian J. Douglas<sup>1</sup>, Christopher T. Rentsch<sup>1</sup>, Rohini Mathur<sup>1</sup>, Angel Y. S. Wong<sup>1</sup>, Richard Grieve<sup>1</sup>, David Harrison<sup>5</sup>, Harriet Forbes<sup>1</sup>, Anna Schultze<sup>1</sup>, Richard Croker<sup>2</sup>, John Parry<sup>3</sup>, Frank Hester<sup>3</sup>, Sam Harper<sup>3</sup>, Rafael Perera<sup>2</sup>, Stephen J. W. Evans<sup>1</sup>, Liam Smeeth<sup>1,4,7</sup> & Ben Goldacre<sup>2,7</sup>✉

17 million patient records analysed in 2.5 months? 😍

Working in Python with software developers? 😍

...but it's academia?? 😐

# 2021-2023: University of Oxford (OpenSafely)



- "Start up" mentality - we were on a mission
- Learning about how I like to work

🚀 Open source ✨ Tests 💡 CI/CD 😊 ❤️ automated documentation 🙌

...but, in the end, it was academia.

i.e.,

grant applications  

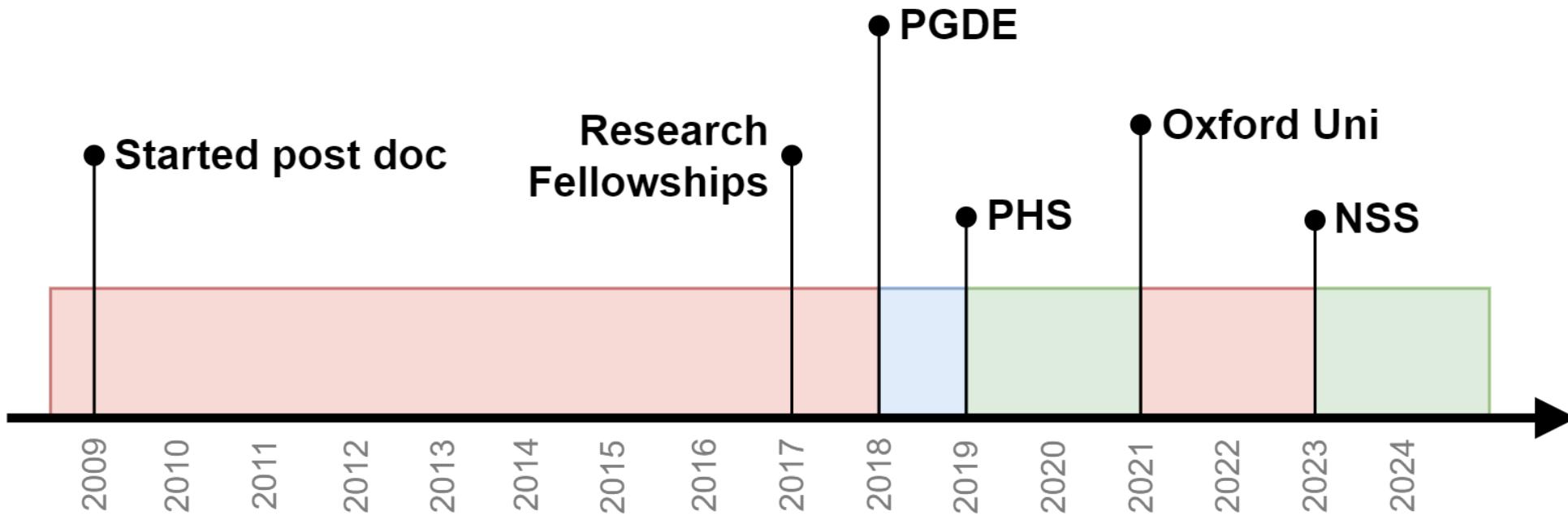
short-term contracts 

no clear career trajectory 

# 2023-present: National Services Scotland

- Senior Technical Consultant
- Developing and maintaining data products used across the NHS 
- First experience of:
  - strict development pipeline (dev → UAT → production)
  - enterprise-level business intelligence
  - service delivery - the NHS *relies* on our service being available
  - business analysis/requirements capture

# A recap



# Industry vs academia (vs public services)

- There are hard problems *everywhere*

# Industry vs academia (vs public services)

- There are hard problems *everywhere*
- Large organisations offer the possibility to try something new with less risk  
...but can be frustratingly slow to modernize

# Industry vs academia (vs public services)

- There are hard problems *everywhere*
- Large organisations offer the possibility to try something new with less risk  
...but can be frustratingly slow to modernize
- Workplace culture can vary dramatically and it is important

# Industry vs academia (vs public services)

- There are hard problems *everywhere*
- Large organisations offer the possibility to try something new with less risk  
...but can be frustratingly slow to modernize
- Workplace culture can vary dramatically and it is important
- Academia gives you a *lot* of transferable skills

# My career hygiene habits

- Regular, **diarised** reflection
- Look for new opportunities when I feel I've learned all (most) that I can
- Coach teenagers at [Castle Semple Rowing club](#) 



# Take home messages

- Try to reflect as much as you can, preferably from a distance
- Be confident that you have skills that are needed elsewhere, **because you do**
- Talk to people and find out what is out there  
(you can email me at [lisa.hopcroft@nhs.scot](mailto:lisa.hopcroft@nhs.scot) )



# What have been the most influential events?

- The act of leaving academia for teaching
- Realising how much I enjoyed coding and working with data
- Working with software developers 
- Learning about the software development cycle (especially tests )

