Inviting diversity when hiring for data jobs



Why strive for diverse teams



Why strive for diverse teams

What can put off or invite candidates to apply



Why strive for diverse teams

What can put off or invite candidates to apply

Practical tips and experience



Why strive for diverse teams

What can put off or invite candidates to apply

Practical tips and experience

Resources for inclusive work environments and events



About me

Lead Data Scientist at FutureLearn



About me





Lead Data Scientist at FutureLearn

Previously at Elvie (FemTech) and Gritty Talent (DE&I in TV industry)

and Gritty raient (DEXI in IV moustry)

Student mentor and STEM outreach contributor

About me





Lead Data Scientist at FutureLearn

Previously at Elvie (FemTech) and Gritty Talent (DE&I in TV industry)

elvie

Student mentor and STEM outreach contributor

On a learning journey on Diversity, Equity and Inclusion (DE&I)

Interviewing, re-writing job descriptions, being interviewed

Diversity and why we want diverse teams



Is the data community diverse?

Kaggle's State of Machine Learning and Data Science 2021

Over 25,000 data scientists and ML engineers submitted responses

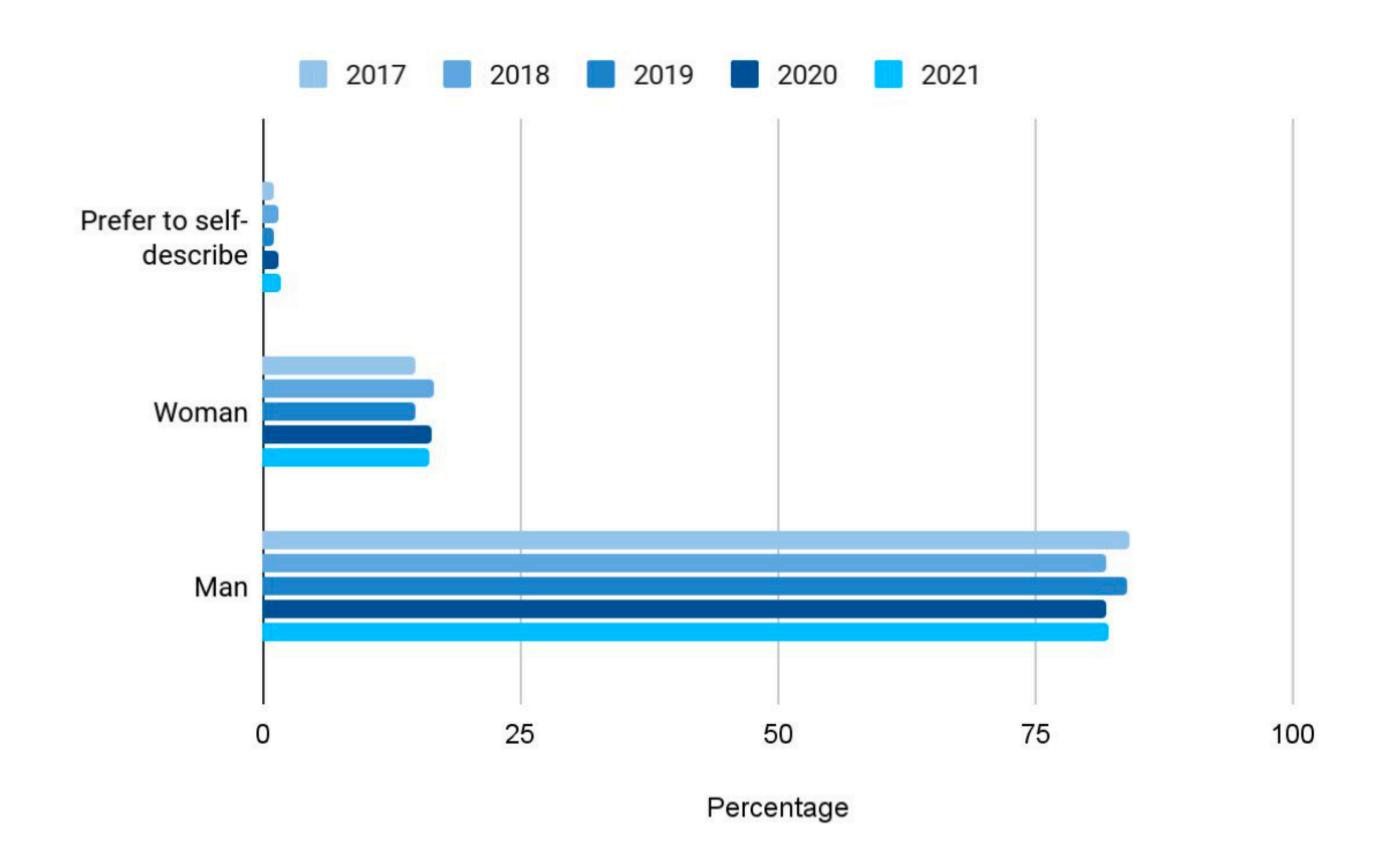
Kaggle's State of Machine Learning and Data Science 2021

Over 25,000 data scientists and ML engineers submitted responses

'Data science is still suffering from a large gender gap in the workplace, as 82% of users identify as men.'

https://www.kaggle.com/kaggle-survey-2021

Gender Identity of Data Scientists



What is diversity

'Diversity is recognising, respecting and celebrating each other's differences.'

What is diversity

'Diversity is recognising, respecting and celebrating each other's differences.'

Protected characteristics (The Equality Act 2010) - discrimination illegal, if on Age, Disability, Gender reassignment, Marriage and civil partnership, Pregnancy and maternity, Race, Religion or belief, Sex, Sexual orientation

https://www.ph.ed.ac.uk/equality-diversity-and-inclusion/about-edi/what-does-equality-diversity-and-inclusion-mean

What is diversity

'Diversity is recognising, respecting and celebrating each other's differences.'

Protected characteristics (The Equality Act 2010) - discrimination illegal, if on Age, Disability, Gender reassignment, Marriage and civil partnership, Pregnancy and maternity, Race, Religion or belief, Sex, Sexual orientation

https://www.ph.ed.ac.uk/equality-diversity-and-inclusion/about-edi/what-does-equality-diversity-and-inclusion-mean

'A diverse environment is one with a wide range of backgrounds and mindsets, which allows for an empowered culture of creativity and innovation.'

https://www.ph.ed.ac.uk/equality-diversity-and-inclusion/about-edi/what-does-equality-diversity-and-inclusion-mean

'A diverse environment is one with a wide range of backgrounds and mindsets, which allows for an empowered culture of creativity and innovation.'

https://www.ph.ed.ac.uk/equality-diversity-and-inclusion/about-edi/what-does-equality-diversity-and-inclusion-mean

Product Innovation, Top Talent, Business Opportunities, Better Quality of Work, Fun

https://hbr.org/2016/11/why-diverse-teams-are-smarter

https://www.forbes.com/sites/forbescoachescouncil/2021/06/24/14-important-benefits-of-a-more-diverse-leadership-team/

'A diverse environment is one with a wide range of backgrounds and mindsets, which allows for an empowered culture of creativity and innovation.'

https://www.ph.ed.ac.uk/equality-diversity-and-inclusion/about-edi/what-does-equality-diversity-and-inclusion-mean

Product Innovation, Top Talent, Business Opportunities, Better Quality of Work, Fun

https://hbr.org/2016/11/why-diverse-teams-are-smarter

https://www.forbes.com/sites/forbescoachescouncil/2021/06/24/14-important-benefits-of-a-more-diverse-leadership-team/

'companies in the top quartile for gender diversity on executive teams were 25 percent more likely to have above-average profitability than companies in the fourth quartile'

https://www.mckinsey.com/featured-insights/diversity-and-inclusion/diversity-wins-how-inclusion-matters

No or limited training for hiring managers

- No or limited training for hiring managers
- Limited lived experience and/or opportunity for feedback

- No or limited training for hiring managers
- Limited lived experience and/or opportunity for feedback
- Start-ups: no People Team / HR Department

Changes in the hiring process

Data Scientist

Reporting to: Head of Data

Location: Bristol / hybrid / remote

THE COMPANY

THE ROLE

RESPONSIBILITIES

REQUIRED EXPERIENCE

REQUIRED SKILLS

OUR VALUES AND CULTURE

Typical job description

Let's look at some sections in more detail

Master's or PhD in a quantitative subject.

Master's or PhD in a quantitative subject.

 A degree in statistics, mathematics, computer science, engineering, economics or another quantitative subject area would be considered a plus

Master's or PhD in a quantitative subject.

 A degree in statistics, mathematics, computer science, engineering, economics or another quantitative subject area would be considered a plus

Degree, preferably higher, educated in Computer Science, Mathematics, Physics, Statistics, or other technical fields

- Master's or PhD in a quantitative subject.
 - A degree in statistics, mathematics, computer science, engineering, economics or another quantitative subject area would be considered a plus

Degree, preferably higher, educated in Computer Science, Mathematics, Physics, Statistics, or other technical fields

- Master's or PhD in a quantitative subject.
 - A degree in statistics, mathematics, computer science, engineering, economics or another quantitative subject area would be considered a plus

Degree, preferably higher, educated in Computer Science, Mathematics, Physics, Statistics, or other technical fields

- * Master's or PhD degree in data science, computer science, statistics, or a related field.
- * 5+ years of experience in data science, machine learning, and predictive modelling.

Master's or PhD in a quantitative subject.

• A degree in statistics, mathematics, computer science, engineering, economics or What are you trying to assess?

Degree or ot

- * Master's or PhD degree in data science, computer science, statistics, or a related field.
- * 5+ years of experience in data science, machine learning, and predictive modelling.

Master's or PhD in a quantitative subject.

A degree in statistics, mathematics, computer science, engineering, economics or

What are you trying to assess?

or of How can you measure 'PhD in STEM 5 years ago' skills in an interview?

- * Master's or PhD degree in data science, computer science, statistics, or a related field.
- * 5+ years of experience in data science, machine learning, and predictive modelling.

Experience and education - better

- Advanced understanding of Linear Algebra
 - 5+ years of working experience on Data Science projects
 - At least 5 years' experience applying data science tools in an engineering, product development or industrial environment
- have a strong understanding of data analysis, probability and statistics.

Experience working with biomedical data

Significant experience in data science or analytics roles, ideally supporting a marketing function for a number of years

Experience and education - better

Advanced understanding of Linear Algebra

• 5+ years of working experience on Data Science projects

Encourages career changers to apply

Experience working with biomedical data

Significant experience in data science or analytics roles, ideally supporting a marketing function for a number of years

Experience and education - better

Advanced understanding of Linear Algebra

• 5+ years of working experience on Data Science projects

Encourages career changers to apply

Focuses on demonstrable skills, rather than formal education

Experience working with biomedical data

Significant experience in data science or analytics roles, ideally supporting a marketing function for a number of years

Experience and education - better

Advanced understanding of Linear Algebra

• 5+ years of working experience on Data Science projects

Encourages career changers to apply

Focuses on demonstrable skills, rather than formal education

Bring in transferrable skills and knowledge from other disciplines

Experience working with biomedical data

Significant experience in data science or analytics roles, ideally supporting a marketing function for a number of years

Fast-paced environment

everything moves at lightning pace and is most definitely not for the faint hearted.

We expect a lot.

Fast-paced environment

Are we aiming to assess 'distance to burnout'?

vve expect a lot.

Fast-paced environment

everything moves at lightning pace and is most definitely not

Are we aiming to assess 'distance to burnout'?

What examples do you want people to bring to the interview?

vve expect a lot.

The next 12-18 months will be fast-paced – no one day will be the same.

It's a fast-paced environment so it is important for you to make sound, reasoned decisions.

The next 12-18 months will be fast-paced – no one day will be the same.

Clarifies expectations

The next 12-18 months will be fast-paced – no one day will be the same.

Clarifies expectations

Focuses on demonstrable skills

The next 12-18 months will be fast-paced – no one day will be the same.

Clarifies expectations

Focuses on demonstrable skills

Welcomes people with non-negotiable commitments

Save time for candidates, and for yourself!

This topic will come up anyway ;-)

Save time for candidates, and for yourself!

This topic will come up anyway ;-)

The salary range starts at £68,240

Save time for candidates, and for yourself!

This topic will come up anyway ;-)

The salary range starts at £68,240

Save time for candidates, and for yourself!

Allows candidates to compare to their requirements

The salary range

Save time for candidates, and for yourself!

Allows candidates to compare to their requirements

Respects candidate's time to write an application

The salary range

Save time for candidates, and for yourself!

Allows candidates to compare to their requirements

Respects candidate's time to write an application

Reduces chance of (gender) pay gap

The salary range

Note: We encourage you to apply for this role, even if you don't match all the requirements 100%. As long as you inherit the eagerness to learn, we are happy to be convinced that you are the right fit for us.

Note: We encourage you to apply for this role, even if you don't match all the requirements 100%. As long as you inherit the eagerness to learn, we are happy to be convinced that you are the right fit for us.

And if you think you have most of what we're looking for but not every single thing, go ahead and hit **apply**. We'd still love to hear from you!

Socialisation can lead people to avoid applying if they:

ΌU

- Do not meet qualifications (≠ skills!)
- Cannot fit 'ideal candidate' description

and hit apply. We'd still love to hear from you!

Source: https://hbr.org/2014/08/why-women-dont-apply-for-jobs-unless-theyre-100-qualified

a two-stage interview process including technical and competency assessments.

a two-stage interview process including technical and competency assessments.

- Screening call (30mins video call)
 An initial screening call to discuss your fit for the role.
- Technical (1hr video call)
 An in-depth discussion on your Data Science experience with a Senior/Lead Data Scientist.
- 3. Senior stakeholder (40min video call)
 A chance to meet a member of the leadership team, discuss your experience in more detail and answer your questions about our company and the role.
- 4. Meet the team, culture and values (1hr video call)
 Meet more of the team, usually including at least a Product
 Manager and one Project Manager. We will also look to assess
 mutual cultural fit.

a two-stage interview process including technical and competency assessments.

Candidates might need to arrange a quiet physical place or childcare

your experience in more detail and answer your questions about our company and the role.

4. Meet the team, culture and values (1hr video call)
Meet more of the team, usually including at least a Product
Manager and one Project Manager. We will also look to assess
mutual cultural fit.

a two-stage interview process including technical and competency assessments.

Candidates might need to arrange a quiet physical place or childcare

Enables to manage anxieties and to prepare

71 onanoo to moot a mombor of the leadership team, alcouse

your experience in more detail and answer your questions about our company and the role.

4. Meet the team, culture and values (1hr video call)
Meet more of the team, usually including at least a Product
Manager and one Project Manager. We will also look to assess
mutual cultural fit.

a two-stage interview process including technical and competency assessments.

Candidates might need to arrange a quiet physical place or childcare

Enables to manage anxieties and to prepare

Enables to communicate well in advance about necessary adjustments

your experience in more detail and answer your questions about our company and the role.

4. Meet the team, culture and values (1hr video call)
Meet more of the team, usually including at least a Product
Manager and one Project Manager. We will also look to assess
mutual cultural fit.

'Research shows that when teams agree on a set of clear criteria and use it consistently for all candidates, the hiring process is fairer and the most qualified women and men can rise to the top.'

https://leanin.org/gender-bias-cards/grid/card/set-6/5

'Research shows that when teams agree on a set of clear criteria and use it consistently for all candidates, the hiring process is fairer and the most qualified women and men can rise to the top.'

https://leanin.org/gender-bias-cards/grid/card/set-6/5

Without setting criteria in advance, they can start 'shifting'

'Research shows that when teams agree on a set of clear criteria and use it consistently for all candidates, the hiring process is fairer and the most qualified women and men can rise to the top.'

https://leanin.org/gender-bias-cards/grid/card/set-6/5

Without setting criteria in advance, they can start 'shifting'

Writing job description and assessment criteria at the same time helps with both

State explicitly how many days required

State explicitly how many days required

'Only possible full-time' - WHY?

State explicitly how many days required

'Only possible full-time' - WHY?

Example: This role can be carried out full-time or part-time, with 4 days per week

State explicitly how many days required

'Only possible full-time' - WHY?

Example: This role can be carried out full-time or part-time, with 4 days per week

Explore: What would stand in the way to make it possible in 3 days?

Some very high-profile success examples!

Typically: 2 people, each 3 days, 1 day overlap

Some very high-profile success examples!

Typically: 2 people, each 3 days, 1 day overlap

'They were promoted together and ended their career as joint chief executives of the Judicial Studies Board. They were also both awarded the CBE.'

https://www.bbc.co.uk/programmes/articles/1Wkwm9Sdbw0ttY3yc88BH3m/want-to-job-share-here-s-eight-tips-from-two-women-who-did-it-for-23-years

Some very high-profile success examples!

Typically: 2 people, each 3 days, 1 day overlap

'They were promoted together and ended their career as joint chief executives of the Judicial Studies Board. They were also both awarded the CBE.'

https://www.bbc.co.uk/programmes/articles/1Wkwm9Sdbw0ttY3yc88BH3m/want-to-job-share-here-s-eight-tips-from-two-women-who-did-it-for-23-years

'Is CEO a two-person job?' - each does what they can do particularly well, and think through difficult decisions together https://hbr.org/2020/09/is-ceo-a-two-person-job

Some very high-profile success examples!

Typically: 2 people, each 3 days, 1 day overlap

'They were promoted together and ended their career as joint chief executives of the Judicial Studies Board. They were also both awarded the CBE.'

https://www.bbc.co.uk/programmes/articles/1Wkwm9Sdbw0ttY3yc88BH3m/want-to-job-share-here-s-eight-tips-from-two-women-who-did-it-for-23-years

'Is CEO a two-person job?' - each does what they can do particularly well, and think through difficult decisions together https://hbr.org/2020/09/is-ceo-a-two-person-job

Job sharing at senior level: A guide for individuals https://cjtalent.com/wp-content/uploads/2018/05/CapabilityJane-Individual-Guide-to-Job-Sharing-at-Senior-Level.pdf

Job share

Some very high-profile success examples!

- Get access to large pool of talent
- Educated, dedicated colleagues and advocates for the business
- Inspire and think boldly

'Is CEO a two-person job?' - each does what they can do particularly well, and think through difficult decisions together https://hbr.org/2020/09/is-ceo-a-two-person-job

Job sharing at senior level: A guide for individuals https://cjtalent.com/wp-content/uploads/2018/05/CapabilityJane-Individual-Guide-to-Job-Sharing-at-Senior-Level.pdf

1. What do we want to assess?

1. What do we want to assess?

Approach to data work, attention to detail, communication, ...

make it a relevant task for the role

1. What do we want to assess?

Approach to data work, attention to detail, communication, ...

- make it a relevant task for the role
- 2. How much time do we expect people to spend on the task?

1. What do we want to assess?

Approach to data work, attention to detail, communication, ...

- make it a relevant task for the role
- 2. How much time do we expect people to spend on the task?

They might have a full-time job, caring responsibilities, financial uncertainty, ...

1. What do we want to assess?

Approach to data work, attention to detail, communication, ...

- make it a relevant task for the role
- 2. How much time do we expect people to spend on the task?

They might have a full-time job, caring responsibilities, financial uncertainty, ...

3. What is possible in 2-3 hours on a data task?

1. What do we want to assess?

Approach to data work, attention to detail, communication, ...

- make it a relevant task for the role
- 2. How much time do we expect people to spend on the task?

They might have a full-time job, caring responsibilities, financial uncertainty, ...

3. What is possible in 2-3 hours on a data task?

Different domain, nervousness, data cleaning, explorative analysis

1. What do we want to assess?

Applementates our company's approach to problem solving, too ;-)

2

П

3. What is possible in 2-3 hours on a data task?

Different domain, cleaning, explorative analysis

- 1. What do we want to assess?
- Appendent of the problem solving, too ;-)
- 2. Enables candidates to make necessary arrangements

3. What is possible in 2-3 hours on a data task?

Different domain, cleaning, explorative analysis

- 1. What do we want to assess?
- Appendent of the problem solving, too ;-)
- 2. Enables candidates to make necessary arrangements
- The Shows respect for each other, and displays our company culture
- 3. What is possible in 2-3 hours on a data task?

Different domain, cleaning, explorative analysis

Resources

- '50 ways to fight bias' cards and online guides
 'Situation + What you can do'
 https://leanin.org/gender-bias-cards/grid/get-started
- NumFOCUS DISCOVER Cookbook 'a resource for organizers of conferences and events to support and encourage diversity and inclusion at those events'
 - 'Low hanging fruits' = 'high impact, low effort' and 'high impact, high effort' https://discover-cookbook.numfocus.org/intro.html

Be an ally https://leanin.org/

Be an ally https://leanin.org/

For Allies

Learn how to do your part in reaching gender equality.

Allyship at Work

Allyship at Home

Training Programs

For managers

Role modeling for girls

50 Ways to Fight Bias

For men

How to be a feminist dad

How to be an equal partner

Allyship at Work

For women

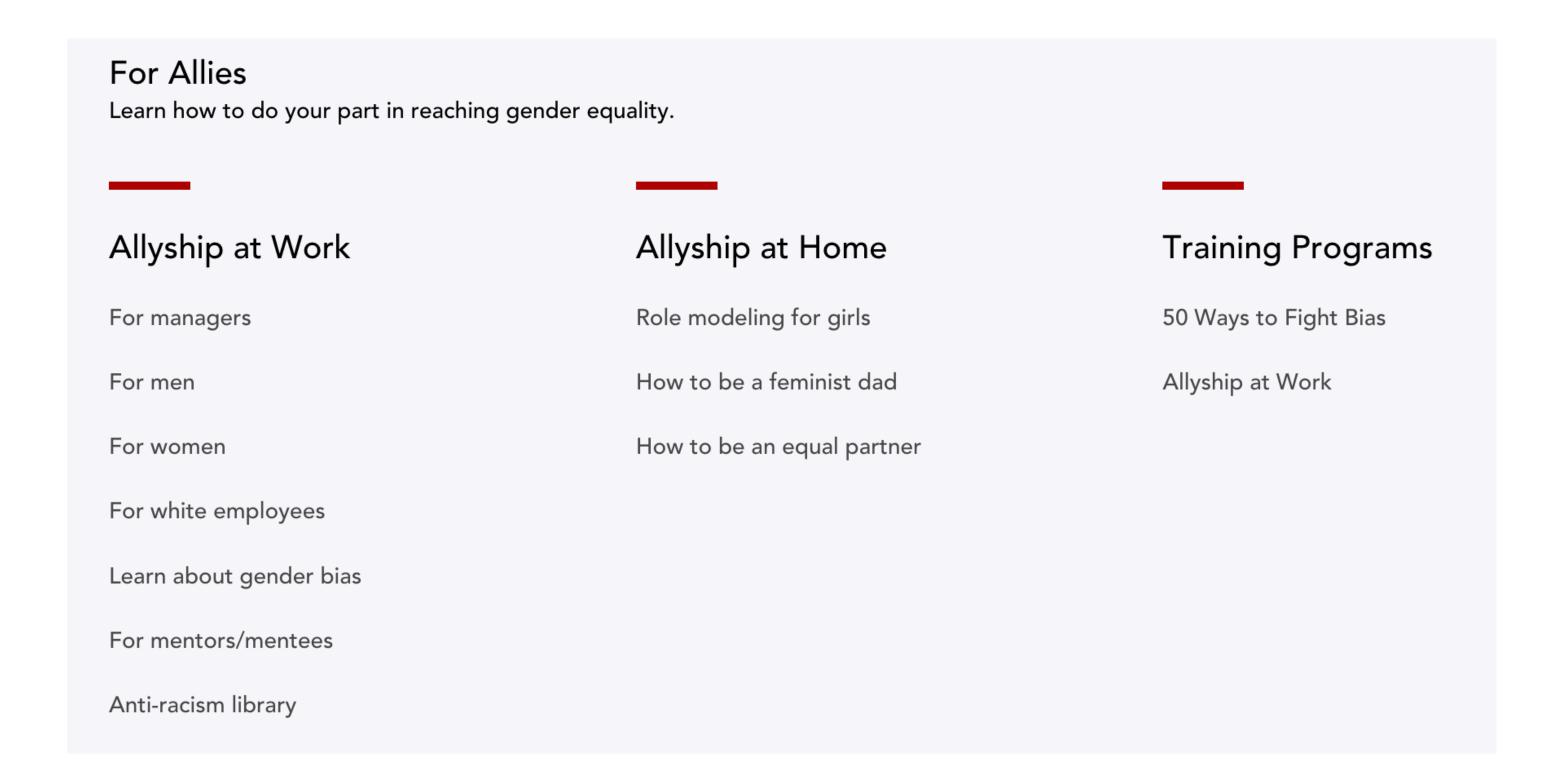
For white employees

Learn about gender bias

For mentors/mentees

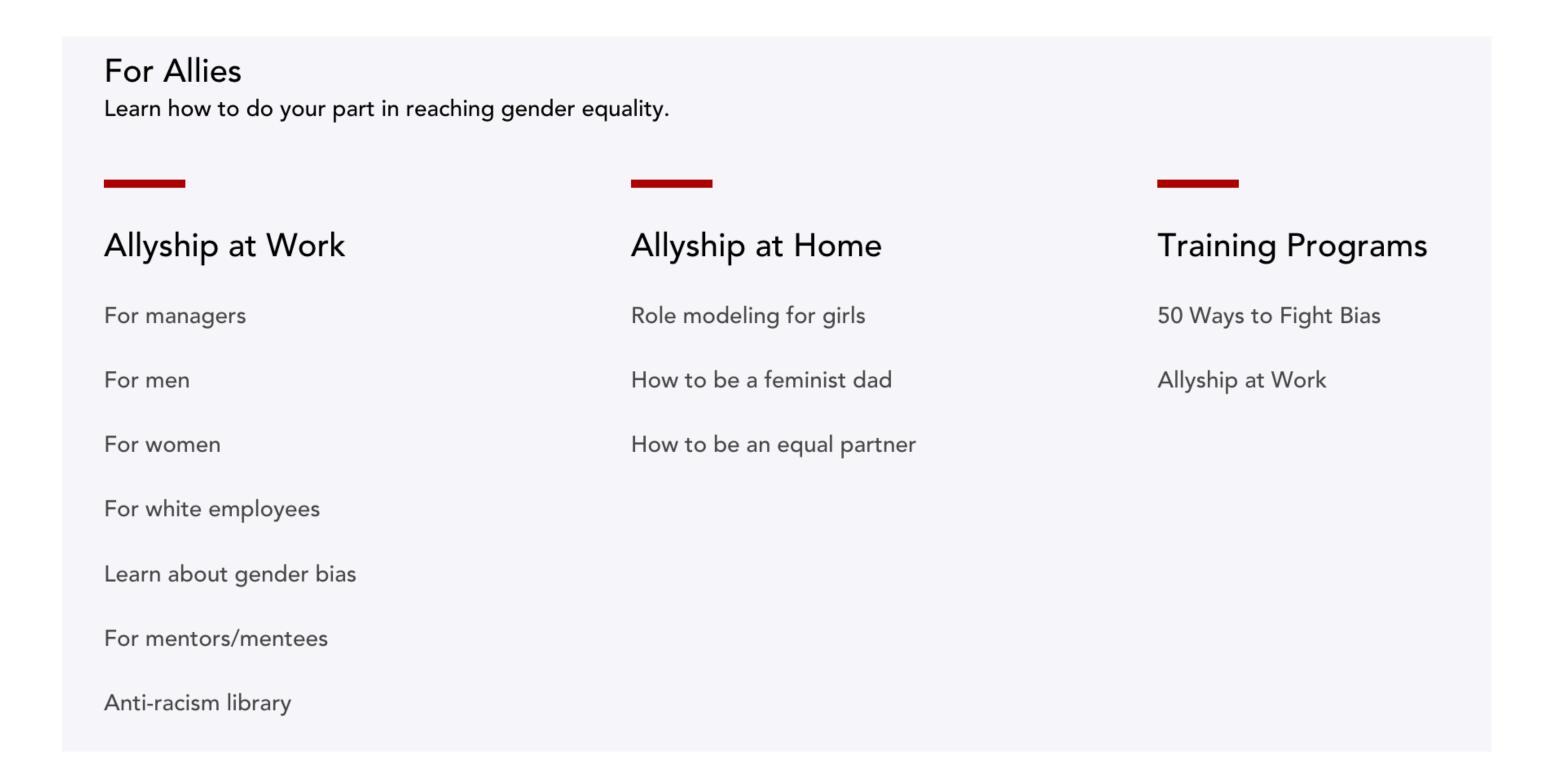
Anti-racism library

Be an ally https://leanin.org/



• Attend 'Women in tech / data' events as an ally

Be an ally https://leanin.org/



- Attend 'Women in tech / data' events as an ally
 - Women's Tech Hub
 - Women in DevOps
 - Girl Geek Dinners join a woman
 - Grace Hopper Celebration US
 - Women of Silicon Roundabout London

Your experiences

Best practices

Questions



Candidate Pack:

Ahead of your interview, please could you:

- Confirm your interview time
- Inform us of any reasonable adjustments required for your interview
- Check your familiarity with the

video meeting system

Welcome and preparatory information

Congratulations on being shortlisted

At the National Trust, data, information, knowledge and insight underpins and enables the work we do.

friendly team

343	National	Trust
-	i ducionidi	I I GOL

Candidate Pack:

Ahead of your interview, please could you:

- Confirm your interview time
- Inform us of any reasonable adjustments required for your interview
- Check your familiarity with the video meeting system

Welcome and preparatory information

Congratulations on being shortlisted

At the National Trust, data, information, knowledge and insight underpins and enables the work we do.

friendly team

This is an exciting time to join us.
Please take the opportunity of the interview process to explore whether this is the right role for you.
The National Trust is a special sort of place, full of passionate people doing amazing things.
We are looking forward to meeting you and good luck in all your preparations.
Best wishes,
Interview accessibility
The first interview process will take place virtually, using video meeting system. We will send you an appointment including a link to join the meeting.
If you are not familiar with please take time to read the joining instructions here
You can either download the
software or just join from your web browser.



Candidate Pack:

Ahead of your interview, please could you:

- Confirm your interview time
- Inform us of any reasonable adjustments required for your interview
- Check your familiarity with the video meeting system

Welcome and preparatory information

Congratulations on being shortlisted

At the National Trust, data, information, knowledge and insight underpins and enables the work we

friendly team

This is an exciting time to join us.		
Please take the opportunity of th	ne interview process to explore v	whether this is the right role for you.
The National Trust is a special so	rt of place, full of passionate peo	ople doing amazing things.
We are looking forward to meeti	ng you and good luck in all your	preparations.
Best wishes,		
,		
Interview accessibility		
The first interview process will ta	ke place virtually, using	video meeting system. We will
send you an appointment includi	ng a link to join the meeting.	
If you are not familiar with	please take time to read the j	oining instructions here
n you are not fairing with	picase take time to read the j	You can either download the
software or just join from your w	veb browser.	. Sa san dinidi da minada dile
, , ,		

We completely recognise that there is nothing more stressful than having IT connection issues, particularly during an interview process. None of us are immune to these technical issues, so in the event of any problems, please be reassured we are not making decisions based on your bandwidth.

If for any reason you experience difficulties, please use the dial-in numbers included in the meeting invite using your phone; and in the event of complete breakdown, use the following number to reestablish contact:

For those who are invited for a second interview, that interview will be in person.

Please could you let us know if you require any reasonable adjustments for the interview process.

The interview process

1 st stage - interview: Tuesday	– 45 mins by	videoconference (see below
Interview panel		

Please be prepared to answer formal interview questions covering areas set out in the job description. There will be time for you to ask questions of us.



Candidate Pack:

Ahead of your interview, please could you:

- Confirm your interview time
- Inform us of any reasonable adjustments required for your interview
- Check your familiarity with the video meeting system

Welcome and preparatory information

Congratulations on being shortlisted

At the National Trust, data, information, knowledge and insight underpins and enables the work we

friendly team

This is an exciting time to join us.
Please take the opportunity of the interview process to explore whether this is the right role for you. The National Trust is a special sort of place, full of passionate people doing amazing things.
We are looking forward to meeting you and good luck in all your preparations.
Best wishes,
Interview accessibility
The first interview process will take place virtually, using video meeting system. We will send you an appointment including a link to join the meeting.
If you are not familiar with please take time to read the joining instructions here You can either download the
software or just join from your web browser.

We completely recognise that there is nothing more stressful than having IT connection issues, particularly during an interview process. None of us are immune to these technical issues, so in the event of any problems, please be reassured we are not making decisions based on your bandwidth. If for any reason you experience difficulties, please use the dial-in numbers included in the meeting invite using your phone; and in the event of complete breakdown, use the following number to reestablish contact:

For those who are invited for a second interview, that interview will be in person.

Please could you let us know if you require any reasonable adjustments for the interview process.

The interview process		
1 st stage - interview: Tuesday	- 45 mins by	videoconference (see below)

Please be prepared to answer formal interview questions covering areas set out in the job description. There will be time for you to ask questions of us.

2nd stage – interview including presentation, and a chance to meet the Data Team (1.5 hours total) Thursday – in person in Swindon

Interview panel

We will be taking a small number of candidates through to a second stage interview (with the same interview panel) and to informally meet members of the Data Team.

When we invite you to the second interview, we will give you a task/ scenario that we will ask you to work through and present back to us. Presentations should last no longer than 10 minutes.

The presentation will be followed by a further session of questions, which will dig deeper on areas discussed at the 1st round, consider the role at a more strategic level and further explore your working preferences. There will be time for you to ask questions of us.

Possible 3 nd stage – interview with senior stakeholders: Friday	(to be confirmed) 40 mi
by	
We may take one or more candidates through to a third stage interview	This
will be confirmed ahead of time.	