



# Stuff I realized too late

NewInML workshop - ICML

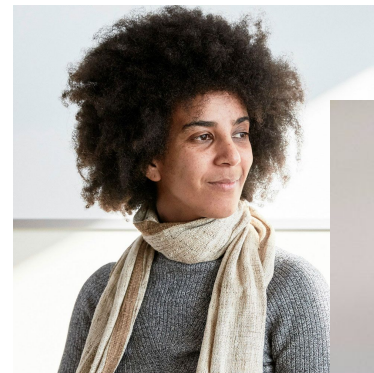
- What should I work on?
  
  
  
  
  
  
  
  
  
  
- Should I go in industry or academia?

- We associate researchers we admire with an area of expertise
- So we focus on what to work on
- More important: how to work?



**DEEP LEARNING**

**OPTIMIZATION**



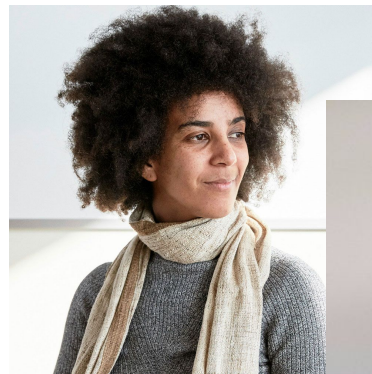
**FAIRNESS**



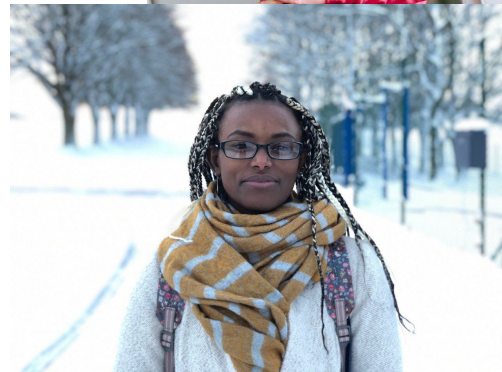


**ABILITY TO  
WORK WITH  
INTUITIONS**

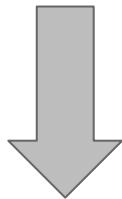
**PRECISION, ABILITY  
TO MAINTAIN MANY  
COLLABORATIONS**



**SEEING THE  
BIG PICTURE**



Which topic do you want to work on?



What kind of work do you want to do?

Learning a topic (1-2 years)

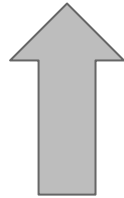


Learning how to ask / answer questions (3-6 years)

Learning a topic (1-2 years)



Learning how to ask / answer questions (3-6 years)



Build a collaboration network (15+ years)



*Inria*

Microsoft®  
**Research**

 Google AI

**criteo** 

 **Mila**

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- Small company: immediate impact, more breadth, less depth
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THESE ARE JUST MY EXPERIENCES!

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- I start building collaborations and asking people for their experiences. What now?
- Experiment!
  - But what if I fail?
    - Failing is critical to learning?
      - Sure?
        - Sure.

# My official CV

- Research scientist at Google Brain
- Adjunct professor McGill / UdeM
- Microsoft research fellowship (2008)
- Lagrange prize (2018)
- CIFAR AI CHAIR (2019)
- TPAMI associate editor, NeurIPS/ICML/ICLR Area chair, ...

# The untold CV

- Did not get my first choice of university (1998)
- Did not get my first choice of Engineering school (2000)
- Did not get my first choice of PhD (2004)
- Did not get my first choice of Postdoc (2008)
- Did not pass google interview (2010)
- Rejected 3 times from Inria/CNRS Researcher competitions (2011/2012)
- Denied Promotion at Google (2019)
- + many rejected submissions at conferences and workshops (last one this month)

# Why did I fail so many times?

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1. Because I tried many things
2. Because I was allowed to fail
  - a. Others picked me up when I was down
  - b. I knew that I belonged

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**Failure is about where you are, not who you are**  
(sometimes also where the others are)

# The importance of psychological safety

- PS drives taking risks drives productivity
  - Successful startup founders have one thing in common: they were rich before
- Building safety is important, for yourself and others
- Inclusive culture = everyone feels they have their place

# Why do I tell this to you?

- You'll grow in power
- It starts right now and it affects many people
  - Women
  - BIPOC
  - Researchers with disabilities
  - Researchers with mental health issues (29% of PhD students)
  - Parents

# Why should you care?

- No one believes they discriminate, yet the field is not as welcoming as it should be
- We are all responsible to make ML a better place
- More inclusive = more productive people = better research

# What can you do? (External)

- Be honest but nice in reviews - ask colleagues for feedback
- Remember the names of students on papers
- Engage with more junior members of the community
- Extend your academic circle

# What can you do? (In your lab)

- Don't brag about working nights / weekends
- Lend your privilege / Amplify marginalized voices
  - Say something if you see bad behaviour (sexism, racism)
    - As simple as saying “I'm not comfortable with that.”
  - Proofread submissions of non-native English speakers
  - Make room for others to speak
- “Culture is the behaviour you reward and punish”

Thank you and welcome to the field!



# More Resources About Inclusion

- [Building inclusive engineering teams - Mekka Okereke](#)
- [Culture is the behavior you reward and punish](#)
- [Guide to allyship](#)
- [Particles for justice](#)