

# From Data Work to Data Science: Getting Past the Gatekeepers

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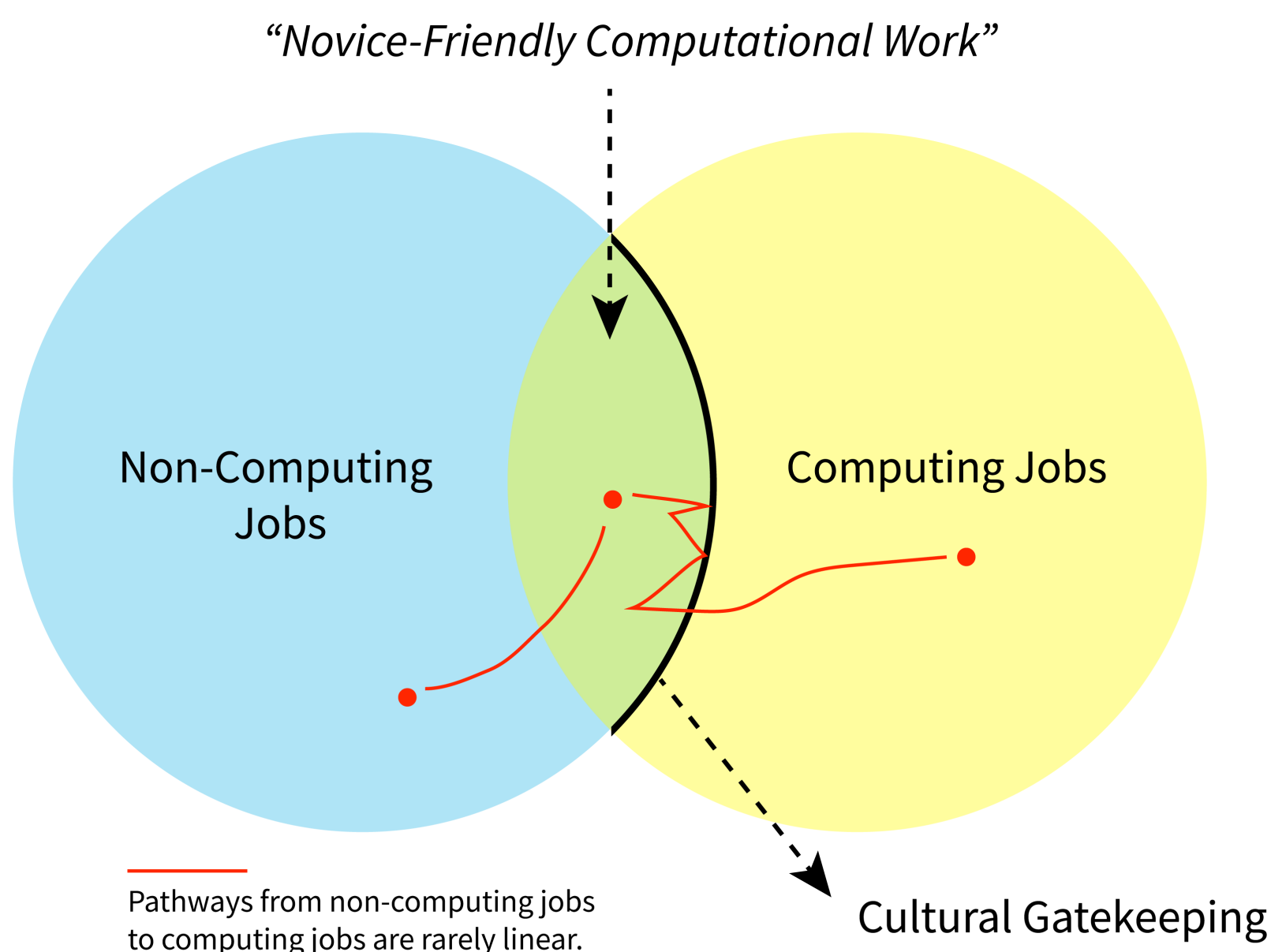
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## Problem Space

Novice-friendly computational work, e.g., data work or web design, can be an alternative pathway to computing careers, but it's a difficult one:

- Gatekeeping in computing culture may deem novice-friendly tools inauthentic [1].
- Novice workers may not be considered legitimate members of computing communities despite engaging in legitimate computational work [2,3].



## Setting – DataWorks @ Georgia Tech)

DataWorks [4] hires people from communities historically minoritized in computing with no formal technical training for one-year as Data Fellows.

- While completing data preparation and basic analysis work for clients, Data Fellows receive training in Excel, Python, and critical data literacy.
- DataWorks aims to prepare Data Fellows to find their next job following the program.

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# To support novice data workers’ career growth in data science, workplace curriculum should reveal the hidden aspects of salaried job search.



<https://notlaura.com/icer-2023>



Ask me more about DataWorks and about future work!

## Objective & Methods

How can workplace curriculum support novice data workers’ career growth in data science?

- Ongoing participatory curriculum design with novice data workers and managers at DataWorks
- Pilot study completed with 5 data workers
- Grounded thematic analysis of semi-structured pre-post interviews to develop codebook
- Now, delivering the curriculum to 5 new data workers

6-week Curriculum	Detail
Career Narrative	Career visioning exercise; Zoom Q&A with computing professionals
Job Search Mindset	Growth mindset intervention
Professional Networking	Informational interviews; email writing & LinkedIn outreach
Resumes & Cover Letters	Keyword & ATS optimization; supported work sessions
Interviewing	Mock interviews with professionals

## Preliminary Pilot Study Findings

**The brutal reality of job search**

“...that's another thing you got to determine, how if they hire people within vs. a person on the outside” – P2 (pre)

“[Looking on job boards] sucks because a lot of jobs are not posted online, most of them are not.” – P5 (pre)

“it's like one big game...[I've picked up some tricks] but I feel like it's all still a grind looking for a job” – P3 (pre)

“...you don't go apply for the job and they hire you at the end of the week. Like, not a good job.” – P2 (post)

“Finding out they have automated systems, my resume may not even hit the desk...[it's] aggravating” – P4 (post)

“[All these] requirements, like bachelor's degree and you're like, oh, shoot, I don't have those” – P1 (post)

## References

1. L. Schenck, S. Verdult, F. Hermans, B. DiSalvo. *Under Review; Title and journal removed to protect anonymity.*
2. A. Rothschild, A. Meng, C. DiSalvo, B. Johnson, B. R. Shapiro, and B. DiSalvo. 2022. “Interrogating Data Work as a Community of Practice.” *CSCW '22*.
3. B. Dorn, A. Stankiewicz, and C. Roggi. 2013. “Lost While Searching: Difficulties in Information Seeking among End-User Programmers.” *Proceedings of the American Society for Information Science and Technology*.
4. <https://dataworkforce.org>