

Teaching Statement

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I love teaching, and see it as a chance to impart knowledge and skills, co-create new knowledge, and further my own learning. My broad definition of teaching includes both science communication and advising, both of which have slightly different goals from teaching classes. Below I elaborate on my experience, what I can teach at REDACTED University, and my educational philosophy.

1 Experience

Teaching Based on my interest in meta-evaluation (see my research statement), I **designed a seminar** titled *Defining and Measuring Abstract Concepts in NLP*, which I will run at Saarland University in Summer 2025. I was also a **co-instructor** for the Winter 2023 edition of *Machine Learning for Natural Language Processing* at Saarland University. As my CV shows, my university-level teaching experience includes **guest lectures and tutorials** to students with diverse backgrounds at several institutions - Saarland University, the University of Hamburg, Harvey Mudd College, Simon Fraser University, and the Widening NLP Workshop at EACL 2021. These include NLP lectures, coding tutorials, and a tutorial about writing NLP papers. Finally, I have experience **teaching children how to code**, from participating in school and volunteer programs in Canada, including Girls Learning Code, Kids Code Jeunesse and CS Education Week. Together, these experiences have taught me how to communicate complex technical concepts at varying levels of granularity and tailored to different audiences. This is particularly valuable when teaching computer science and coding to students who come from the social sciences and humanities.

Advising At Saarland University, I have **supervised the thesis projects** of three Masters students and one Bachelors student. Two of my students (one Computer Science student and one Language Science and Technology student) have successfully defended and graduated, and the other two will finish in 2025. In addition to this more formal advising, I have informally mentored several junior PhD students in my group, and **mentored more than 30 individuals in academia and industry**, mostly from under-represented communities in research and tech.

Science Communication I view science communication as an important component of the work I do, particularly as more and more people interact with NLP technology. Besides **blogging** accessibly about my research, I also have a lot of experience giving **public talks** about NLP to general audiences. I have also been **quoted in the media as an NLP expert**, including for TechCrunch, The Tyee, Science World, and Queer in AI.

2 What I Can Teach at REDACTED University

Thanks to my experience in teaching, research and industry work, I am prepared to teach undergraduate and graduate classes in computational linguistics, NLP, computational social science, computational text analysis, and ethics and data, as well as most introductory courses in general linguistics. As language is such a key part of our experiences as humans, I think it is critical to teach non-linguists about linguistics, and I am glad that REDACTED University enables this through undergraduate breadth requirements. As for linguistics students, I would be able to technically train them in computational methods through introductory programming courses for linguists, focusing on the essentials of command-line usage in bash, version control with git, and scripting in Python, all of which are currently the most sought-after skills in industry positions for linguists.

I would also like to develop and teach the following courses, which I feel comfortable tailoring to be either more linguistics-focused or more NLP-focused, or to be broader for the REDACTED program:

- **Defining and Measuring Abstract Concepts in NLP**, a seminar I will teach at Saarland University in Summer 2025: NLP research uses various concepts like ‘interpretability’, ‘reasoning’, ‘stereotypes’, and so on, but what exactly do these words mean? What should they mean, and how do we measure that? Students will learn how to critique papers, evaluate aspects of conceptualization and operationalization, and design NLP projects that address gaps in these aspects.
- **Research Methods in Interdisciplinary Work**: Students will learn about epistemologies and paradigms, as well as quantitative, qualitative and mixed methods. They will also complete an interdisciplinary project where they reflect on methodological choices to answer a question, and use methods in creative ways.
- **Bias, Fairness and Justice in Linguistics/NLP**: A seminar highlighting research on bias and fairness. A linguistics-focused version of the course would cover raciolinguistics, queer linguistics, crip linguistics, and more, while an NLP-focused version of the course would include the study of biases and fairness in NLP systems, of which there is a rich literature.

In general, I believe that computational methods can provide value to nearly all subfields of linguistics, and I would also be happy to teach them in formats beyond traditional, single-instructor lectures, e.g., by augmenting existing courses (e.g., morphology, syntax, phonetics, etc.) with a computational component, which I could co-teach.

3 Educational Philosophy

My teaching and advising have the following goals: impart skills (including information literacy and critical thinking), encourage curiosity and collaboration, and reinforce that linguistics, NLP and research are for everyone. I accomplish this through the following actions:

Transparency and Structure In teaching and advising, I focus heavily on transparency, i.e., creating explicit goals and grounding all assessments in these goals, as well as providing opportunities for students to give and receive feedback (both positive and constructive). I believe transparency is particularly important given the hidden curriculum of academia, which disadvantages international students who come from different curricula, first-generation students, and neurodivergent students. In seminars that I have taught, transparency and structure takes the form of explicit learning objectives, fine-grained evaluation criteria that are clearly communicated beforehand, and generous and timely feedback on student work. In the context of advising, I created a “Guide to PhDing” in my research group, in order to transmit knowledge about the hidden curriculum across generations of PhD students. This document contains over 20 pages of content on doing research, writing papers, attending conferences, and so on. It is now a collaboratively-maintained resource that is invaluable for new students, and professors at other institutions have also copied parts for their groups.

Hands-on Engagement My classes tend to be highly interactive, featuring student discussion as well as hands-on projects to deepen students’ connection with the material. When I advise students, I establish regular, semi-structured meetings, to discuss both high-level research goals and low-level writing, data and code decisions. In the context of advising, hands-on engagement means following the ‘see one, do one, teach one’ method: I first show a student a research skill, such as how to structure a paper, then I supervise as they do one themselves, and finally, they should try to teach someone else – perhaps a more junior graduate student.

Interdisciplinarity Knowledge and methods from multiple disciplines is rich and valuable, and I wish to imbue my students with a sense of wonder at all that there is to know in the world. For linguistics students, this often means demystifying computers and programming, which are not as far out of reach as they might think. For non-linguistics students, it often means teaching them that language, something they might think they know all about, is fascinating and complex. For students in interdisciplinary programs such as the REDACTED program or the REDACTED major, as well as advisees, it might mean showing them how to transport definitions and methods from one discipline to answer questions from a completely different one.

Establishing Norms To create a safe and stimulating environment for learning, I want to clearly establish norms of inclusion, curiosity and respect. I will do this both by modelling these behaviours and by explicitly stating these norms, i.e., that there is no bad question, and that exclusion and harassment are not okay. When norms are violated (e.g., racist comments, sexist jokes, misgendering of a student), I will proactively correct the behaviour and re-establish the norm, prioritizing restorative over punitive justice.

Diversity and Inclusion Vancouver is a very diverse city, and the REDACTED University student community reflects this. Students come from different backgrounds (international students, students from other provinces), have different needs and capacity (students with caring responsibilities, disabled students), and supporting them requires flexibility on my part. As someone who is brown, queer, trans and disabled, I have many experiences of prejudice and exclusion in the classroom and beyond, and thus, diversity and inclusion activities are particularly important to me; I am an organizer of Queer in AI, I co-founded a resource group for BIPOC employees at my previous company, and I have been involved in a number of initiatives for inclusive education and research, e.g., a workshop on Trans and Nonbinary Computing Education Research, as well as panels on immigration, queerness, disability, and more. At REDACTED University, I hope to be a role model to minoritized students via teaching, advising and mentoring, and to increase institutional awareness and support of the issues facing different groups of students.