Vagrant Gautam

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EDUCATION

Ph.D. | *Computer Science*   **October 2021 – July 2025 (expected)**
Saarland University, Germany

Bachelors of Science | *Linguistics and Computing Science*   **2015 – 2019**
Simon Fraser University, Canada
- Graduated with distinction, GPA: 3.99
- Full-ride entrance scholarship, Dean's List, President's List

PROFESSIONAL EXPERIENCE

Speech Recognition Engineer   **May 2019 – August 2021**
Dialpad   Vancouver, Canada
- Integrated class-based and n-gram language modelling for improved ASR
- Expanded and optimized domain adaptation of a generic English ASR model to company- and user-specific data, enabling a 288x speedup during training
- Maintained English lexica and created a program to auto-flag incorrect lexicon entries based on phonological structure

Research Assistant   **September 2018 – September 2019**
SFU Discourse Processing Lab   Burnaby, Canada
- Led annotation of English and French news articles to evaluate the Gender Gap Tracker, an NLP system to track gender disparities in who gets quoted in Canadian news
- Developed the Gender Gap Tracker for French
- Did a large-scale computational analysis of topics, toxicity and constructiveness of online comments on Canadian news articles
- Performed corpus linguistic analyses on the '*adverb*-ly *adjective*' construction

Software Engineering Intern   **January 2018 – August 2018**
GE Digital   Burnaby, Canada
- Developed software for Predix App Engine, an Industrial Internet of Things platform
- Led the creation of a technical installation guide for on-premise installation of our multi-node, multi-service platform, covering platform services, networking, systems administration and security, authentication and access control

Research Assistant   **September 2016 – April 2019**
SFU Phonological Processing Lab   Burnaby, Canada
- Curated visual and auditory stimuli, created word lists, and programmed eye-tracking experiments in the visual world paradigm

AWARDS

Outstanding Academic Achievement Award   **2019**
Awarded by the Department of Linguistics for "consistent academic excellence"

Gordon M. Shrum National Entrance Scholarship   **2015 – 2019**
CAD 54,000
Full-ride scholarship, conditional on continued academic excellence

KEY Big Data Undergraduate Student Research Award   **2019**
CAD 6,500
Awarded to work on the Gender Gap Tracker with Maite Taboada

Social Sciences & Humanities Undergraduate Student Research Award   **2018**
CAD 2,250
Awarded to work with Maite Taboada on analyzing online news comments

Mark & Nancy Brooks Computing Science Innovation Award   **2018**
CAD 1,300
Awarded for "demonstrating exceptional accomplishment, promise or innovation in computing science outside classroom work"

TEACHING

Seminars
- *Defining and Measuring Abstract Concepts in NLP*, Summer 2025
  Saarland University, Germany
- *Machine Learning for Natural Language Processing*, Winter 2023, with Dietrich Klakow
  Saarland University, Germany

Tutorials and Guest Lectures
- *Trust and Fairness in Modern AI*, Ethics and Modern AI 2024
  University of Hamburg, Germany
- *Git for Git Users* (2 sessions), Computational Linguistics Software Project 2024
  Saarland University, Germany
- *Git for Beginners*, Research Process Management Workshop 2023
  Saarland University, Germany
- *A Chat about ChatGPT*, Introduction to French Cultural and Media Studies 2023
  Saarland University, Germany
- *How to write an NLP paper* (with Sabrina Mielke), WiNLP Workshop
  EACL 2021
- Natural Language Processing 2021
  Harvey Mudd College, USA
- *VBA for Excel* (2 sessions), WISE Workshop Series 2020
  Simon Fraser University, Canada
- *Hour of Code* (4 sessions), CS Education Week 2020
  Stride Avenue Community School, Canada

SUPERVISION

- Elisa Forcada Rodriguez
  Masters in Language Science and Technology, Saarland University
- Jingyan Chen
  Masters in Language Science and Technology, Saarland University
- Sandra Gajic
  Bachelors in Computational Linguistics, Saarland University
- Sambit Bhaumik
  Masters in Computer Science, Saarland University

INVITED TALKS

2024 Uppsala University, Sweden
Title: *A Call to Embrace Multidimensionality when Studying AI's Social Impacts*

2024 DFKI Saarbrücken, Germany
Title: *Understanding "Democratization" in NLP and ML Research*

2024 Saarland University, Germany
Title: *Evaluating Large Language Models — Choosing Goals and Measuring Them*

2024 DFKI Saarbrücken, Germany
Title: *From Insights to Actions: The Impact of Interpretability and Analysis Research on NLP*

2024 Mila - Quebec AI Institute, Canada
Title: *Are LLMs Reasoning, Repeating or Just Biased? A Case Study with English Pronouns*

2024 Interdisciplinary Institute for Societal Computing, Germany
Title: *On Gender Gaps in Natural Language Processing*

2024 University of Hamburg, Germany
Title: *Measuring and Improving Robustness in NLP*

2024 Critical Media Lab Basel, Switzerland
Title: *On Gender Gaps in Natural Language Processing*

2021 Open Source Day 2021
Title: *Sure, It's Open, But Is It Inclusive?*

2021 Women in Voice Summit 2021
Title: *Lofty Linguistic Ideals and Deploying in Tech Realities*

2021 Simon Fraser University, Canada
Communication and Language class

PUBLICATIONS

Vagrant Gautam, Julius Steuer, Eileen Bingert, Ray Johns, Anne Lauscher, Dietrich Klakow. WinoPron: Revisiting English Winogender Schemas for Consistency, Coverage, and Grammatical Case. *Workshop on Computational Models of Reference, Anaphora and Coreference*, 2024.

Marius Mosbach, **Vagrant Gautam***, Tomás Vergara-Browne*, Dietrich Klakow, Mor Geva. From Insights to Actions: The Impact of Interpretability and Analysis Research on NLP. *EMNLP*, 2024.

Arjun Subramonian*, **Vagrant Gautam***, Dietrich Klakow, Zeerak Talat. Understanding "Democratization" in NLP and ML Research. *EMNLP*, 2024.

Vagrant Gautam, Eileen Bingert, Dawei Zhu, Anne Lauscher, and Dietrich Klakow. Robust Pronoun Fidelity with English LLMs: Are they Reasoning, Repeating, or Just Biased?. *Transactions of ACL*, 2024 (to appear).

Vagrant Gautam, Arjun Subramonian, Anne Lauscher, Os Keyes. Stop! In the Name of Flaws: Disentangling Personal Names and Sociodemographic Attributes in NLP. *Workshop on Gender Bias in Natural Language Processing*, 2024.

Paloma García-de-Herreros*, **Vagrant Gautam***, Philipp Slusallek, Dietrich Klakow, and Marius Mosbach. What explains the success of cross-modal fine-tuning with ORCA?. *Workshop on Insights from Negative Results in NLP*, 2024.

Miaoran Zhang, **Vagrant Gautam**, Mingyang Wang, Jesujoba O. Alabi, Xiaoyu Shen, Dietrich Klakow, and Marius Mosbach. The Impact of Demonstrations on Multilingual

In-Context Learning: A Multidimensional Analysis. *Preprint*, 2024.

Vagrant Gautam, Miaoran Zhang, and Dietrich Klakow. A Lightweight Method to Generate Unanswerable Questions in English. *Findings of EMNLP*, 2023.

Anaelia Ovalle, Arjun Subramonian, **Vagrant Gautam**, Gilbert Gee, and Kai-Wei Chang. Factoring the Matrix of Domination: A Critical Review and Reimagination of Intersectionality in AI Fairness. *AIES*, 2023.

Vagrant Gautam, Wang Yau Li, Zafarullah Mahmood, Frederic Mailhot, Shreekantha Nadig, Riqiang Wang, and Nathan Zhang. Avengers, Ensemble! Benefits of ensembling in grapheme-to-phoneme prediction. *SIGMORPHON*, 2021.

Fatemeh Torabi Asr, Mohammad Mazraeh, Alexandre Lopes, **Vagrant Gautam**, Junette Gonzales, Prashanth Rao, and Maite Taboada. The Gender Gap Tracker: Using Natural Language Processing to measure gender bias in media. *PLoS ONE*, 2021.

SERVICE

Reviewing
- ARR 2022, 2023, 2024
- ACL 2023, 2024
- EMNLP 2023
- NeurIPS 2023
- CHI 2023, 2025
- Ethics reviewing: ACL-IJCNLP 2021, EACL 2024, ACL 2024, NAACL 2024

Diversity, Equity and Inclusion
Recurring
- Organizer, Queer in AI (2020–present)
- Co-founder and lead of ColourID, a BIPOC Employee Resource Group (2020–2021)
- Coding Mentor, Girls Learning Code (2016–2018)

One-off
- Panelist, Queer in AI Workshop, ICML 2024
  Title: *Challenges and Perspectives for Queer and/or Disabled Communities Presented by AI in HCI*
- Panelist, Queer in AI Workshop, NeurIPS 2022
  Title: *Immigration and Queerness*
- Panelist, Trans and Nonbinary Computing Education Research Workshop 2022
  Title: *Current State of Trans and Nonbinary Computing Education Research*
- Panelist, Queer in AI Workshop, NAACL 2022
  Title: *Non-binary Representation in Language Technologies*
- Invited commencement speaker, 2021
  YWCA Tech Connect Program for Newcomer Women
- Invited speaker, Queer in AI Social, COLING 2020
  Title: *The Doors My Queerness Opened*
- Panel organizer and moderator, NAACL 2021
  Title: *Intersectionality in NLP*
- Data Science Mentor, Try/CATCH 2019 Computing Conference for high school girls

SKILLS

Technical   Python, C++, Java, bash, Matlab, SQL, PyTorch, Huggingface Transformers, LaTeX, Docker, git, HTCondor

Language   English (native); German (B2 - advanced comprehension, intermediate speaking); Spanish, French (advanced comprehension, basic speaking); Malayalam, Tamil, Hindi (conversational)

Interests   Birding, photography, singing, preserving bugs