

# CURRICULUM VITAE

## Nicholas M. Vincent

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### RESEARCH AREAS

Responsible Artificial Intelligence, Human-computer Interaction, Human-centered Machine Learning, Social Computing

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### ACADEMIC APPOINTMENTS

**Assistant Professor, Computing Science at Simon Fraser University** (Burnaby, British Columbia, Canada).

July 2023 – present.

**Postdoctoral Scholar at the University of California, Davis** (Davis, CA)

2022 – July 2023.

- Co-advised by [Dr. Seth Frey](#) (UC Davis, Department of Communication) and Dr. [Amy X. Zhang](#) (University of Washington, School of Computer Science and Engineering)

### EDUCATION

Northwestern University (Evanston, IL)

2017-2022

- Doctor of Philosophy in [Technology and Social Behavior](#) (dual program in Computer Science and Communication), advised by [Dr. Brent Hecht](#)
- [Dissertation](#): *Data Leverage: A Framework for Empowering the Public to Mitigate Harms of Artificial Intelligence*

University of California, Los Angeles (Los Angeles, CA)

2012-2016

- Bachelor of Science in Electrical Engineering (magna cum laude)
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### PUBLICATIONS

#### Refereed Papers in Archival Publication Venues

[C13] Li, H., **Vincent, N.**, Chancellor, S., and Hecht, B. 2023. The Dimensions of Data Labor: A Roadmap for Activists, Researchers, and Practitioners to Empower Data Producers. In *ACM FAccT 2023*.

[C12] Contractor, D., McDuff, D., Haines, J., Lee, J., Hines, C., Hecht, B., **Vincent, N.**, and Li, H. 2022. Behavioral Use Licensing for Responsible AI. *ACM FAccT 2022*. New York : ACM Press. <https://doi.org/10.1145/3531146.3533143>

[C11] Bandy, J. and **Vincent, N.** 2021. Addressing “Documentation Debt” in Machine Learning Research: A Retrospective Datasheet for BookCorpus. *NeurIPS 2021 Datasets Track*.

[C10] Chowdhury, F.A., Liu, Y., Saha, K., **Vincent, N.**, Neves, L., Shah, N., and Bos, M.W. 2021. CEAM: The Effectiveness of Cyclic and Ephemeral Attention Models of User Behavior on Social Platforms. In *Proceedings of the International AAAI Conference on Web and Social Media*, 15(1), 117-128. <https://doi.org/10.1609/icwsm.v15i1.18046>

[C9] **Vincent, N.** and Hecht, B. 2021. Can “Conscious Data Contribution” Help Users to Exert “Data Leverage” Against Technology Companies? *Proc. ACM Hum.-Comput. Interact.* 5, CSCW1, Article 103 (April 2021), 23 pages. <https://doi.org/10.1145/3449177>

[C8] **Vincent, N.** and Hecht, B. 2021. A Deeper Investigation of the Importance of Wikipedia Links to Search Engine Results. *Proc. ACM Hum.-Comput. Interact.* 5, CSCW1, Article 4 (April 2021), 15 pages. <https://doi.org/10.1145/3449078>

[C7] Saha, K., Liu, Y., **Vincent, N.**, Chowdhury, F.A., Neves, L., Shah, N., and Bos, M. 2021. AdverTiming Matters: Examining User Ad Consumption for Effective Ad Allocations on Social Media. *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, New York, NY, USA, Article 581, 1–18. <https://doi.org/10.1145/3411764.3445394>

[C6] **Vincent, N.**, Li, H., Tilly, N., Chancellor, S., and Hecht, B. 2021. Data Leverage: A Framework for Empowering the Public in its Relationship with Technology Companies. *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency (FAccT '21)*. Association for Computing Machinery, New York, NY, USA, 215–227. <https://doi.org/10.1145/3442188.3445885>

[C5] Li, H. \*, **Vincent, N.** \*, Tsai, J., Kaye, J., and Hecht, B. 2019. How Do People Change Their Technology Use in Protest?: Understanding “Protest Users”. *Proc. ACM Hum.-Comput. Interact.* 3, CSCW, Article 87 (November 2019), 22 pages. <https://doi.org/10.1145/3359189>  
\* indicates equal contributions.

[C4] **Vincent, N.**, Hecht, B., and Sen, S. 2019. “Data Strikes”: Evaluating the Effectiveness of New Forms of Collective Action Against Technology Platforms. In *The World Wide Web Conference (WWW '19)*. Association for Computing Machinery, New York, NY, USA, 1931–1943. <https://doi.org/10.1145/3308558.3313742>

[C3] **Vincent, N.**, Johnson, I., Sheehan, P., and Hecht, B. 2019. Measuring the Importance of User-Generated Content to Search Engines. In *Proceedings of the International AAAI Conference on Web and Social Media*, 13(01), 505-516.

[C2] Foong, E., **Vincent, N.**, Hecht, B., and Gerber, E. 2018. Women (Still) Ask For Less: Gender Differences in Hourly Rate in an Online Labor Marketplace. *Proc. ACM Hum.-Comput. Interact.* 2, CSCW, Article 53 (November 2018), 21 pages. <https://doi.org/10.1145/3274322>

[C1] **Vincent, N.**, Johnson, I., and Hecht, B. 2018. Examining Wikipedia with a Broader Lens: Quantifying the Value of Wikipedia's Relationships with Other Large-Scale Online Communities. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, New York, NY, USA, Paper 566, 1–13. <https://doi.org/10.1145/3173574.3174140>

\* Received a Best Paper award (Top 1% of submissions)

## Book Chapters

[B1] Feygin, Y., **Vincent, N.**, Li, H., Lala, C., and Scarcella, L. 2021. From My Data to Our Data: A Proposal to Equitably Distribute Wealth in a Digital Economy, in *The Future of Building Wealth: Brief Essays on the Best Ideas to Build Wealth—for Everyone*. *Federal Reserve Bank of St. Louis and Aspen Institute Financial Security Program*.

## Workshop Papers and Poster Papers

[W7] Li, H., Ajmani, L., Zhou, M., **Vincent, N.**, Hwang, S., Piccardi, T., Narayan, S., Daniel, S. and Veselovsky, V., 2022. Ethical Tensions, Norms, and Directions in the Extraction of Online Volunteer Work. In *Companion Publication of the 2022 Conference on Computer Supported Cooperative Work and Social Computing* (pp. 273-277). <https://doi.org/10.1145/3500868.3560923>. This paper describes our CSCW workshop.

[W6] Jones, I., Hecht, B., and **Vincent, N.** 2022. Misleading Tweets and Helpful Notes: Investigating Data Labor by Twitter Birdwatch Users. *CSCW'22 Posters*. <https://doi.org/10.1145/3500868.3559461>

[W5] **Vincent, N.** and Vandevoorde, C. 2022. Collaborative Design of Contribution Tracking Systems for Decentralized Organizations. *Crypto Economics Security Conference (CESC) 2022 Posters*.

[W4] **Vincent, N.** and Hecht, B. 2020. Can “Conscious Data Contribution” Help Users to Exert “Data Leverage” Against Technology Companies? *ACM Collective Intelligence 2020*. This workshop paper was extended and published as [C9] above.

[W3] **Vincent, N.** and Hecht, B. 2020. A Deeper Investigation of the Importance of Wikipedia Links to the Success of Search Engines. *WikiWorkshop 2020*. This workshop paper was extended and published as [C8] above.

[W2] Stier, N., **Vincent, N.**, Liebeskind, D. and Scalzo, F. 2015. Deep learning of tissue fate features in acute ischemic stroke. *IEEE Bioinformatics and Biomedicine (BIBM), 2015* (pp. 1316-1321). IEEE.

[W1] **Vincent, N.**, Stier, N., Yu, S., Liebeskind, D.S., Wang, D.J. and Scalzo, F. 2015. Detection of hyperperfusion on arterial spin labeling using deep learning. *IEEE Bioinformatics and Biomedicine (BIBM)*, 2015 (pp. 1322-1327). IEEE.

### **Other Publications**

[O5] Abhari, R., Villa-Turek, E., **Vincent, N.**, Dambanemuya, H. and Horvát, E.Á., 2023. Retracted Articles about COVID-19 Vaccines Enable Vaccine Misinformation on Twitter. *arXiv preprint arXiv:2303.16302*.

[O4] Abhari, R., **Vincent, N.**, Dambanemuya, H.K., Bodon, H. and Horvát, E.Á., 2022. Twitter Engagement with Retracted Articles: Who, When, and How?. *arXiv preprint arXiv:2203.04228*.

[O3] **Vincent, N.** and Hecht, B. 2021. Preview of “Data and its (dis)contents: A survey of dataset development and use in machine learning research”. *Patterns*.

[O2] Feygin, Y., Li, H., Lala, C., Hecht, B., **Vincent, N.**, Scarcella, L. and Prewitt, M. 2021. A Data Dividend that Works: Steps toward Building an Equitable Data Economy.

[O1] **Vincent, N.**, Li, Y., Zha, R. and Hecht, B. 2019. Mapping the Potential and Pitfalls of "Data Dividends" as a Means of Sharing the Profits of Artificial Intelligence. *arXiv preprint arXiv:1912.00757*.

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## PROFESSIONAL EXPERIENCE

### **Research Intern at Microsoft** in Redmond, WA.

Summer 2021

- Advisor: Christian Liensberger. Group: Office the CTO

### **Research Intern at Snap Inc.** in Los Angeles, CA.

Summer 2020

- Team: Maarten Bos, Leonardo Neves, Neil Shah, and Yozen Liu. Group: Computational Social Science

### **Cloud Programming Specialist at Cloudbakers** in Chicago, IL.

September 2016 – June 2017

- Designed and built custom full-stack web applications for mid-market businesses.

### **Naval Research Intern at Space and Naval Warfare Systems Command** in San Diego, CA.

Summer 2015 and Summer 2016

- Advisor: Doug Grimmett

### **Software Engineer Intern at Cisco Systems** in San Jose, CA.

Summer 2014

- Worked on integration testing and software build automation for a security product.

### **Cross Functional Intern at Cisco Systems** in San Jose, CA.

Summer 2013

- Developed software and analyzed workflow for the Intellectual Assets Protection team.
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## TEACHING EXPERIENCE

### **Teaching Assistant at Northwestern University**

Fall 2020

- Teaching assistant for [Statistics and Statistical Programming](#)

### **Peer Learning Facilitator at UCLA's Academic Advancement Program**

September 2014 – June 2015

- Led learning sessions and provided mentoring to students in UCLA's [Academic Advancement Program](#) taking differential equations and multivariable calculus.
  - UCLA's Academic Advancement Program is a long-standing diversity and equity program focused on supporting historically underrepresented undergraduate students.
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## PROFESSIONAL SERVICE

### Academic Reviewing

- Conferences: ACM SIGCHI | ACM CSCW | AAAI ICWSM | NeurIPS | NeurIPS Datasets and Benchmarks Track | ACM The Web Conference | WikiWorkshop | ACM FAccT | ACM WSDM | IC2S2 | ACM EAAMO
- Journals: PLOS One | Patterns | Information, Communication, and Society | ACM Journal on Responsible Computing

### California Data Dividends Initiative Working Group

2019 – 2022

- Led efforts to study and advance “[data dividends](#)”.

### Artificial Intelligence Journal Club Leadership at Northwestern University

April 2019 – Fall 2021

- Served as an officer of the [Artificial Intelligence Journal Club](#), a Ph.D. student group that met weekly to discuss papers in artificial intelligence and machine learning.

### Computer Science Ph.D. Advisory Council at Northwestern University

September 2018 – December 2018

- Built community for Computer Science Ph.D. students at Northwestern University and gives students a voice in the department.

### InfoSocial Conference Co-Chair

Summer 2018 - Summer 2019

- Served as one of two co-chairs for the [InfoSocial](#) student-run conference. As a co-chair, I organized the conference, which included papers sessions, panels with faculty and community organizations, and networking opportunities.

### Undergraduate Research Mentoring

2017-2021

- Mentored undergraduates in the People, Space, and Algorithms Research Group at Northwestern University: Patrick Sheehan (one quarter: resulted in a publication); Ramish Zaidi (one quarter); Alan Li (three quarters: resulted in a pre-print); Renee Zha (one quarter: resulted in a pre-print); Neil Vakharia (three quarters), Isaiah Jones (one quarter: resulted in a workshop paper).

## Selected Talks and Panels

- 2023. Community Data Science Collective. “[Community Dialogue on Accountable Governance and Data.](#)”
  - 2023. Center for Advancing Safety of Machine Intelligence (CASMI) - [Toward a Safety Science of AI](#). Talk on “Algorithmic Contestability.”
  - 2021. [3<sup>rd</sup> Obfuscation Workshop](#). Talk on “Public interest technologies for the ML age.”
  - 2021. [Wikimedia Foundation Showcase](#). Talk on “The Importance of Wikipedia to Search Engines and Other Systems”.
  - 2021. Panel on “[Data Agency: Individual or Shared?](#)”.
  - 2020. [RxC Conference](#). Talk on “Data Driven Economy for All.”
  - 2018. [Wikimedia Foundation Showcase](#). Talk on “The Critical Relationship of Volunteer-Created Wikipedia Content to Large-Scale Online Communities.”
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## AWARDS

- Northwestern University School of Communication [Graduate Dissertation Award](#)
  - Reviewing awards and distinction
    - Best Reviewer Award: ICWSM 2022
    - Outstanding Reviewer: NeurIPS 2022 Datasets and Benchmarks Track
    - Highly Useful Distinction: CSCW 2022
    - Best Reviewer Award: ICWSM 2021
  - Northwestern University 2019 Presidential Fellowship Finalist
  - NSF-GRFP 2018 Honorable Mention
  - Best Paper Award (top 1% of submissions) at CHI 2018 for “Examining Wikipedia with a Broader Lens: Quantifying the Value of Wikipedia's Relationships with Other Large-Scale Online Communities.”
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## SELECTED MEDIA COVERAGE

### Data leverage

- [Le Monde](#). Aurélien Defer, “Internet users are 'poisoning' their personal data in the fight against online surveillance,” April 2022.
- [Libération](#). Nicolas Celnik, “Comment empoisonner ses données pour débroussoler les Gafa,” August 2021.
- [MIT Technology Review](#). Karen Hao, “How to poison the data that Big Tech uses to surveil you,” March 2021.
- [Fortune](#). Jonathan Vanian and Jeremy Kahn, “Your data is a weapon that can help change corporate behavior,” February 2021. This also appeared in the [ACM TechNews](#).
- [Quartz](#). Nicolás Rivero, “Is it time for Netflix subscribers to go on strike?” July 2020.

### Data dividends

- [Bloomberg](#). Peter Coy, “Facebook and Others Should Pay Us for Our Data. Here’s One Way.” May 2021.

## Value of Wikipedia

- [New York Times Magazine](#). Jon Gertner, "Wikipedia's Moment of Truth", July 2023.
  - [New York Times](#). John Herrman, "YouTube May Add to the Burdens of Humble Wikipedia", March 2018. Also covered on the Northwestern Computer Science [website](#).
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## SKILLS

I work regularly with: Python, JavaScript, machine learning, recommender systems, web development

I have experience with: Julia, R, MATLAB, Java, C++, Django, signal processing, causal inference, mobile development