

# CURRICULUM VITAE

**Nicholas M. Vincent**

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## RESEARCH AREAS

Human-centered Machine Learning, Responsible AI, Human-computer Interaction (HCI), Social Computing

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## EDUCATION

Northwestern University (Evanston, IL)

2017 – Present

- Doctor of Philosophy in Technology and Social Behavior (dual program in Computer Science and Communication: <https://tsb.northwestern.edu>)
- Adviser: Dr. Brent Hecht

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

[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.

[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. DOI:<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. DOI:<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. DOI:<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. DOI:<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. DOI:<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. DOI:<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. DOI:<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. DOI:<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

[W4] **Vincent, N.** and Hecht, B. 2020. Can “Conscious Data Contribution” Help Users to Exert “Data Leverage” Against Technology Companies? *ACM Collective Intelligence 2020*.

[W3] **Vincent, N.** and Hecht, B. 2020. A Deeper Investigation of the Importance of Wikipedia Links to the Success of Search Engines. *WikiWorkshop 2020*.

[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

[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*. Forthcoming.

[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

- Integration testing for a security product and automating software build process

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

Summer 2013

- Developed internal software for the Intellectual Assets Protection team and analyzed company workflow to suggest interventions to protect intellectual assets

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## TEACHING EXPERIENCE

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

September 2020 – December 2020

- Teaching assistant for Statistics and Statistical Programming
- [https://wiki.communitydata.science/Statistics and Statistical Programming \(Fall 2020\)](https://wiki.communitydata.science/Statistics_and_Statistical_Programming_(Fall_2020))

### **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
  - See more here: <https://www.aap.ucla.edu>
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## **PROFESSIONAL SERVICE**

### **Academic Reviewing**

- Conferences: ACM CHI, ACM CSCW (“highly useful” distinction in 2022), AAAI ICWSM (best reviewer award in 2021), NeurIPS, The Web Conference
- Journals: PLOS One, Patterns

### **California Data Dividends Initiative Working Group**

Sep 2019 – Present

- Played a leading role in coordinating and writing a report on “data dividends”
- See more here: <https://www.datadividends.org/>

### **Artificial Intelligence Journal Club Leadership at Northwestern University**

April 2019 – Fall 2021

- Served as one of three officers of the Artificial Intelligence Journal Club, a Ph.D. student group that meets weekly to discuss papers from across artificial intelligence and machine learning.
- See more here: <https://aijcnu.github.io/>

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

September 2018 – December 2018

- Served on CSPAC, a student organization that builds community for Computer Science Ph.D. students at Northwestern University and gives students a voice in the department
- See more here: <https://cspac.cs.northwestern.edu/>

### **InfoSocial Conference Co-Chair**

Summer 2018 - Summer 2019

- Served as one of two co-chairs for the InfoSocial Graduate Student Conference. As a co-chair, I organized the conference, which included papers sessions, panels with faculty and community organizations, and networking opportunities.
- InfoSocial is “a student-run conference dedicated to showcasing interdisciplinary graduate student research examining the role of technology in contemporary society”
- See more here: <https://infosocial.soc.northwestern.edu>

### **Undergraduate Research Mentoring**

2017-2021

- Mentored a variety of undergraduates doing research 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).

## Invited Talks and Panels

- 3<sup>rd</sup> Obfuscation Workshop 2021 - Public interest technologies for the ML age: <https://3rd.obfuscationworkshop.org/>
  - 2020 RxC Conference: <https://www.radicalxchange.org/events/2020-conference/>
  - Wikimedia Foundation Showcase. 2018 and 2021: [https://www.mediawiki.org/wiki/Wikimedia\\_Research/Showcase](https://www.mediawiki.org/wiki/Wikimedia_Research/Showcase)
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## AWARDS

- Best Reviewer Award at 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

- [Libération](#). Nicolas Celnik, “Comment empoisonner ses données pour déboussoler 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](#). 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, supervised machine learning, recommender systems, web development

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