

# CHRISTOPHER K. TOKITA

christopher.tokita@gmail.com

Los Angeles, CA 90025

## EDUCATION

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- Ph.D.** **Princeton University**, Ecology and Evolutionary Biology<sup>†</sup> **2021**  
<sup>‡</sup> *Graduate Certificate* in Computational Science and Engineering  
National Science Foundation Graduate Research Fellow  
Dissertation: “Networks, Collective Behavior, and Information in Social Systems—From Ant Colonies to Social Media”  
Advisor: Corina E. Tarnita
- M.A.** **Princeton University**, Ecology and Evolutionary Biology **2018**
- B.S.** **Yale University**, Ecology and Evolutionary Biology, with Distinction in the Major **2014**  
Thesis: “Defective Interfering Particles in Filamentous Bacteriophage—Microscopic Game Theory.” (Advised by Paul E. Turner)

## PUBLICATIONS

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\* denotes equal contribution & authorship

### Peer-reviewed

11. **Tokita CK**. (In Prep) Networks of agglomeration: how population density rewires social networks and reshapes contagion dynamics.
10. **Tokita CK**, Aslett K, Godel WP, Sanderson ZN, Tucker JA, Persily N, Bonneau RA. (2024) Measuring receptivity to misinformation at scale on a social media platform. *PNAS Nexus*, 3(10). doi: 10.1093/pnasnexus/pgae396
9. Downie AE, et al. [including **Tokita CK**] (2023). Spatiotemporal-social association predicts immunological similarity in rewilded mice. *Science Advances*, 9(51). doi: 10.1126/sciadv.adh8310
8. Bak-Coleman JB, **Tokita CK**, Morris DH, Rubenstein DI, Couzin ID. (2022) Collective wisdom in polarized groups. *Collective Intelligence*, 1(1). doi: 10.1177/26339137221104788
7. **Tokita CK**, Guess AM\*, Tarnita CE\*. (2021) Polarized information ecosystems can reorganize social networks via information cascades. *Proceedings of the National Academy of Sciences*, 118(50). doi: 10.1073/pnas.2102147118
6. Ulrich Y\*, Kawakatsu M\*, **Tokita CK**, Saragosti J, Chandra V, Tarnita CE\*, Kronauer DJC\*. (2021) Response thresholds alone cannot explain empirical patterns of division of labor in social insects. *PLoS Biology*, 19(6): e3001269. doi: 10.1371/journal.pbio.3001269
5. **Tokita CK**, Tarnita CE. (2020) Social influence and biased interactions can drive emergent behavioural specialization and modular social networks across systems. *Journal of the Royal Society Interface*, 17: 20190564. doi: 10.1098/rsif.2019.0564
4. Ulrich Y, Saragosti J, **Tokita CK**, Tarnita CE, Kronauer DJC. (2018) Fitness benefits and emergent division of labour at the onset of group-living. *Nature*, 560(7720): 635–638. doi: 10.1038/s41586-018-0422-6.
3. Henry LP\*, **Tokita CK\***, Misra M, Forrow AB, Rubenstein DI. (2018) Mutualistic acacia ants exhibit lower defensive behavior and higher off-tree movement near termite mounds. *Biotropica*, 50(4): 559–562. doi: 10.1111/btp.12572
2. **Tokita CK**, Doane WEJ, Zuckerman BL. (2016) Reframing participation in postsecondary STEM education with a representation metric. *Bulletin of Science, Technology, and Society*, 35(5-6), 125-133. doi: 10.1177/0270467616645222
1. **Tokita CK**, Oliver JC, Monteiro A. (2013) A survey of eyespot sexual dimorphism across nymphalid butterflies. *International Journal of Evolutionary Biology*, 2013(2013), 1-6. doi: 10.1155/2013/926702

### Government Reports

3. Clavin CT, Petropoulos ZE, Gupta N, **Tokita CK**. (2017) Case studies of community resilience and disaster recovery from the 2013 Boulder County floods. *National Institute Standards and Technology, United States Department of Commerce*. Grant/Contract Reports (NISTGCR) - 16-011. doi: 10.6028/NIST.GCR.16-011
2. Tinkle SS, Mary JC, Snaveley JE, Pomeroy-Carter CA, **Tokita CK**. (2016) An outcome evaluation of the National Institutes of Health Director's New Innovator Award Program for fiscal years 2007-2009. *IDA Science and Technology Policy Institute\**. IDA Paper P-8478. \*Prepared for the National Institutes of Health
1. Tinkle SS, Mary JC, Snaveley JE, Pomeroy-Carter CA, **Tokita CK**. (2016) An evaluation of the National Institutes of Health Director's New Innovator Award Program Finalists for fiscal years 2007-2009. *IDA Science and Technology Policy Institute\**. IDA Paper P-8478. \*Prepared for the National Institutes of Health

#### White Papers

1. **Tokita CK**, Rhie C, Mauna-Woanya A, Egan B, et al. (2024). Infill housing & land use as a tool to fight climate change. *Abundant Housing LA* (joint publication with Urban Environmentalists, Sunrise Movement LA, Livable Communities Initiative, and Los Angeles Climate Reality Project). [\[link\]](#)

## PUBLIC WRITING & OP-EDS

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### Policy & Politics

6. **Tokita CK**. "Apartments are not Internment and invoking that history to block housing is wrong." *Los Angeles Daily News* (syndicated in *Orange County Register* and other Southern California News Group outlets), October 2025. [\[link\]](#)
5. **Tokita CK**. "Senator Allen and Assemblymember Zbur Will Destroy Their Environmental Legacy By Opposing SB 79." *Santa Monica Daily Press* and *Santa Monica Next*, August 2025. [\[link\]](#) [\[link\]](#)
4. Irwin T, Mauna-Woanya A, Rhie C, **Tokita CK**. "Two housing bills could save California's chance for climate action." *Los Angeles Daily News* (syndicated in *Orange County Register* and other Southern California News Group outlets), July 2025. [\[link\]](#)
3. **Tokita CK**. "To Save Little Tokyo, We Must Welcome—Not Block—More Housing." *Rafu Shimpo*, December 2024. [\[link\]](#)
2. Mauna-Woanya A, Rhie C, **Tokita CK**. "Dear Mayor Bass: Infill Housing Can Help LA Become Both Affordable and Sustainable." *Los Angeles Sentinel*, September 2024. [\[link\]](#)
1. Mauna-Woanya A, Rhie C, **Tokita CK**. "Los Angeles Has a Climate Crisis and a Housing Crisis. Infill Housing Can Help Solve Both." *Next City*, August 2024. [\[link\]](#)

### Science & Technology

1. **Tokita CK**. "What animal societies say about ours." *Biomusings*, April 2020. [\[link\]](#)

## RESEARCH EXPERIENCE

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<b>Tarnita Lab - Princeton University</b> , Princeton, NJ <i>National Science Foundation Graduate Research Fellow</i>	2016 - 2021
<b>The IDA Science and Technology Policy Institute</b> , Washington, DC <i>Data Analyst (Science Policy Fellow)</i>	2014 - 2016
<b>Turner Lab - Yale University</b> , New Haven, CT <i>Senior Thesis Researcher</i>	2013 - 2014
<b>Organization for Tropical Studies</b> , Puerto Viejo de Sarapiquí, Costa Rica <i>National Science Foundation REU Research Fellow</i>	2013
<b>Alonzo Lab - Yale University</b> , New Haven, CT <i>Undergraduate Researcher</i>	2013
<b>Monteiro Lab - Peabody Museum of Natural History</b> , New Haven, CT <i>Peabody Summer Research Intern</i>	2012

**Post Lab – Yale University**, New Haven, CT  
*Science, Technology, and Research Scholar (STARS) Program Summer Researcher*

2011

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**PROFESSIONAL EXPERIENCE**


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**Sprout Social**, Los Angeles, CA (Remote)  
*Senior Applied AI/ML Scientist*

2025 - Present

Using a scientific and data-driven approach to experiment with the latest generative AI models to find ways to build helpful tools for social media teams and users. Member of the Agents & Frameworks team in the R&D organization. Achievements include:

- Drove evaluation framework for product-wide AI agent.
- Developed statistical sampling pipeline in combination with LLM model to summarize thousands of social media messages into clear, user-legible themes.

**Stripe**, Los Angeles, CA (Remote)  
*Senior Data Scientist*

2023 - 2025

Using data, machine learning, and AI to help protect the internet's economy. Member of the Technology Data Science team partnering with the Security Analytics & Detection team to improve Stripe's security posture. Created data-driven and ML-based solutions to detect and prevent malicious activities, including:

- Built and deployed an ML-based detection system for flagging insider risk.
- Built and deployed Bayesian forecasting model to predicting future risk from open security vulnerabilities in Stripe systems.
- Created company-wide dashboard monitoring web attacks on Stripe systems, improving security posture and directly informing the first ever security report delivered to the Board of Directors.

**Phylum**, Los Angeles, CA (Remote)  
*Senior Data Scientist*  
*Data Scientist*

2022 – 2023

2021 – 2022

Phylum is a cybersecurity startup whose platform detects risk and vulnerabilities in the open-source software ecosystem, protecting customers from malware, vulnerabilities, and supply chain attacks. Using extremely large datasets, I analyze software's social ecosystem—the behavior, networks, and discussions of millions of software authors—to detect security risks and bad actors:

- Constructed an unsupervised ML model to flag anomalous behavior among software authors.
- Constructed and deployed an NLP + supervised ML model to detect online discussion of new security vulnerabilities far before they are officially documented by the US Government.
- Visualized large networks of authors + packages that comprise the open-source software ecosystem.

**Office of Assemblyman Andrew Zwicker, PhD**, Skillman, NJ  
 New Jersey State Legislature  
*Policy Intern*

2017 - 2018

Performed policy research in support of the Assemblyman's duties as Chair of the Assembly Committee on Science, Technology, and Innovation. Researched and wrote policy briefings that are in use now to craft future bills related to autonomous vehicles and state-backed venture capital. Responded to policy-related constituent inquiries and assisted in day-to-day operation of the Assemblyman's office.

**The IDA Science and Technology Policy Institute**, Washington, DC

2014 - 2016

Institute for Defense Analyses

*Data Analyst – Science Policy Fellow*

Conducted science policy research and analysis for the White House Office of Science and Technology Policy (OSTP) and other science-conducting Federal Agencies. Worked with PhDs and other policy experts to evaluate research programs and other S&T issues through quantitative methods. Research used statistical analyses and coding in R. Specific projects and activities:

- Analyzed NSF research grant programs using social network analyses and topic modeling.
- Evaluated underrepresented minority participation in STEM fields at undergraduate institutions using novel statistical metric for participation rates.
- Analyzed NIH biomedical research grant programs using bibliometrics and recipient surveys.

**LEADERSHIP & SERVICE****Abundant Housing LA**, Los Angeles, CA

2023 - Present

*Board of Directors**Board Chair (2025 - Present)*

Abundant Housing Los Angeles (AHLA) is a nonprofit dedicated to addressing Southern California's housing shortage by increasing the supply of homes at all levels of affordability. AHLA also conducts policy research, educates the public, and endorses pro-housing candidates through its 501(c)(4) arm.

**Eagle Rock High School Alumni Association & Scholarship Fund**, Los Angeles, CA

2021 - Present

*Board of Directors*

Contributed to governance and operations of the education-focused 501(c)(3) nonprofit. Personally funded annual *Social Impact Scholarship* for graduating civic-minded seniors entering their first year of college.

**TEACHING & PUBLIC OUTREACH****Department of Ecology and Evolutionary Biology**, Princeton University, Princeton, NJ

Assistant in Instruction, EEB313 Behavioral Ecology

Fall 2017

Assistant in Instruction, EEB211 Life on Earth: Chaos and Clockwork of Biological Design

Fall 2016

**Science and Quantitative Reasoning Center**, Yale University, New Haven, CT

2012 - 2014

Science and QR Tutor

**Yale College Dean's Office**, Yale University, New Haven, CT

2012 - 2014

Science, Technology, and Research Scholar (STARS) Peer Mentor

**Office of Undergraduate Admissions**, Yale University, New Haven, CT

2010 - 2014

Student Ambassador

**DIVERSITY, EQUITY, & INCLUSION WORK****Científico Latino**

2021 - Present

*Mentor*

Científico Latino aims to help undergraduate, graduate, and professional students from underrepresented backgrounds by providing mentorship. Mentored a student applying to PhD programs and helped guide them through the graduate school application process.

**Office of the Associate Dean for Access, Diversity, and Inclusion**, The Graduate School, Princeton University*Head Diversity Fellow*

2020 - 2021

*Diversity Fellow*

2018 - 2020

Building community among graduate students from underrepresented backgrounds by program development, event planning, and recruitment events. Events were developed in collaboration with university offices and centers, including the Center for Career Services, PACE Center for Civic Engagement, and the Princeton University Art Museum. Promoted to Head Diversity Fellow in 2020, which added the responsibilities of mentoring and taking lead of the 8-person team of Fellows.

**EEB Scholars Program**, Department of Ecology and Evolutionary Biology, Princeton University, Princeton, NJ  
*Co-Founder and Program Coordinator*

2017 - 2019

Planned and executed our department's first-ever preview program aimed explicitly at increasing access and diversity to the fields of ecology and evolutionary biology. Each year, the program brings prospective students from both domestic and international institutions. Coordinated team of graduate student volunteers to put on various programs for participants, including graduate application workshops, meetings with faculty, and a poster session. Ran program for first two years before handing to other members of the department.

**Committee on Diversity, Inclusion, and Departmental Climate**, Department of Ecology and Evolutionary Biology, Princeton University  
*Graduate Student Representative*

2017 - 2019

Member of departmental diversity and inclusion committee—which includes representatives from graduate students, postdoctoral researchers, staff, and faculty. Advocated for graduate student concerns related to inclusivity.

## PRESENTATIONS

## TALKS

8. How polarized information ecosystems can reorganize social networks. (2022) *Meta Computational Social Science Seminar*. Meta, Menlo Park. CA.
7. How polarized social networks emerge from organic information cascades. (2021) *Organizing meeting for PNAS Special Issue on Political Polarization*. Princeton University, Princeton, NJ.
6. The emergence of polarized social networks via information cascades. (2020) *Princeton Workshop on Political Polarization*. Princeton University, Princeton, NJ.
5. The self-organizing parallels between division of labor & political polarization. (2019) *Social Decisions Workshop*. University of Houston, Houston, TX.
4. Social influence & biased interactions can drive social organization across systems. (2019) *The Columbia-Rutgers-Princeton-Penn-Yale Annual EEB Graduate Student Symposium*. Princeton University, Princeton, NJ. **\*Winner for Best Behavior Talk**
3. Social interactions can drive emergent behavioral diversity and modular social network structure. (2018) *Social Insects in the Northeast Regions Conference*. Drexel University, Philadelphia, PA.
2. Social interactions can drive emergent behavioral diversity and modular social network structure. (2018) *Ki-Net Young Researchers Workshop: Kinetic descriptions in theory and applications*. University of Maryland, College Park, MD.
1. Reframing Participation and Equality in STEM Education. (2015) *Atlanta Conference on Science and Innovation Policy*. Atlanta, GA.

## POSTERS

1. Towards Complex Societies: Group Size and Division of Labor Help Early Social Groups Succeed. (2018) *The Annual Meeting of the American Association for the Advancement of Science (AAAS)*. Austin, TX. **\*Winner for Best Student Poster, Brain and Behavior Section**

## AWARDS & HONORS

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Institutional Nominee for the Schmidt Science Fellowship	<b>2020</b>
Katherine S. McCarter Graduate Student Policy Award, Ecological Society of America	<b>2019</b>
National Science Foundation Graduate Research Fellowship	<b>2016 – 2021</b>
IDA Science and Technology Policy Institute Science Policy Fellowship	<b>2014 – 2016</b>
<i>Distinction in the Ecology and Evolutionary Biology Major</i> , Yale University	<b>2014</b>
National Science Foundation Research Experience for Undergraduates Fellowship	<b>2013</b>
Peabody Museum of Natural History Research Fellowship	<b>2012</b>
Yale Science, Technology, and Research Scholar (STARS) Fellowship	<b>2011</b>
National College Match Finalist, Questbridge Scholarship	<b>2009</b>

## RESEARCH FUNDING & GRANTS

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Data-Driven Social Science Initiative, Princeton University	\$6,260	<b>2020</b>
Research Seed Funding, Department of Ecology & Evolutionary Biology, Princeton University	\$2,500	<b>2017</b>
National Science Foundation Graduate Research Fellowship	\$138,000	<b>2016</b>