

Lucy Van Kleunen

Contact Information

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Pronouns: she/her

Research Interests

network science, machine learning, computational biology
previous work in human-computer interaction and ubiquitous computing

Thesis

Title: Predicting structure and dynamics of ecological networks under uncertainty
Committee: Aaron Clauset (CU Boulder, Computer Science, co-chair), Laura Dee (CU Boulder, Ecology and Evolutionary Biology, co-chair), Daniel Larremore (CU Boulder, Computer Science), Liz Bradley (CU Boulder, Computer Science), François Massol (Centre d'Infection et d'Immunité de Lille)

Education

University of Colorado Boulder 2018 - expected Summer 2023
Ph.D. student, Computer Science
Concentration: Complex Systems
M.S., Computer Science 2021
Area Exam Subject (Fall 2020): Complex Systems
Area Exam Committee: Aaron Clauset (CU Boulder, Computer Science, co-chair), Laura Dee (CU Boulder, Ecology and Evolutionary Biology, co-chair), Daniel Larremore (CU Boulder, Computer Science)
Initial Concentration (Fall 2018 - Spring 2020): Human-Centered Computing (HCC)
HCC Advisor: Stephen Volda (CU Boulder, Information Science)

Brown University 2013 - 2017
B.A., Computer Science
B.A., Public Policy

Honors & Awards

Chateaubriand Fellowship Spring-Summer 2022
Graduate School International Travel Grant (UbiComp, London) Summer 2019
College of Engineering & Applied Science Dean's Graduate Assistantship 2018-2019
Magna Cum Laude, Brown University 2017
Elected to Phi Beta Kappa Honor Society, Brown University 2017
Guggenheim Scholarship 2013-2017

Research Experience

Research Assistant, CU Boulder Clauset Lab Fall 2022
Assistance with work on OCRA funded project, "A machine learning approach to chemotherapy-induced remodeling of the tumor microenvironment" (Python)
Chateaubriand Fellow, Institut Pasteur de Lille Spring - Summer 2022
Understanding and addressing uncertainty in plant-pollinator networks (Python, R)

Research Assistant, CU Boulder Dee Lab Summer 2021
Assistance with work on NSF Grant 2049360, "The consequences of species loss for food web persistence and functioning in the Gulf of Maine rocky intertidal" (Project Management, Literature Review, Python)

Research Assistant, CU Boulder Too Much Information Lab Spring 2020
Developing self-tracking applications for management of bipolar disorder (JavaScript, React)

Research Assistant, Rhode Island Innovative Policy Lab Spring 2017
Standardization of administrative data (SQL)

Research Assistant, Brown HCI Group Spring 2016 - Spring 2017
Assistance with Drafty project (Java)

Research Team Lead, Brown Graphics Laboratory Summer 2015
Leader on Touch Art Gallery project, coordinator for Nobel Will exhibit with the Nobel Foundation (Stockholm) (Project Management, JavaScript)

Research Assistant, Brown Graphics Laboratory Spring 2014 - Spring 2015
Touch Art Gallery project (JavaScript)

Teaching Experience

Grader, CU Boulder CSCI 3352 Biological Networks (Python) Spring 2022

Teaching Assistant, CU Boulder CSCI 2270 Data Structures (C++) Fall 2021

Teaching Assistant, CU Boulder CSCI 2270 Data Structures (C++) Spring 2021

Teaching Assistant, CU Boulder CSCI 2270 Data Structures (C++) Fall 2020

Grader, CU Boulder CSCI 3352 Biological Networks (Python) Fall 2019

Teaching Assistant, CU Boulder INFO 1201 Comp Reasoning 1 (Python) Fall 2019

Coursework

University of Colorado Boulder

CSCI 5622, Machine Learning (Python)

EBIO 5460, Data Science for Biological Research (R)

CSCI 5448, Object Oriented Design (Java)

CSCI 5446, Chaotic Dynamics (Python)

CSCI 5314, Dynamic Models in Biology (MATLAB)

CSCI 7000, Wearable / Mobile Systems for Health

CSCI 5839, User-Centered Design and Development

INFO 6101, Theories and Concepts

INFO 5611, Experience Design in Ubiquitous Computing

CSI 5352, Network Analysis and Modeling (Python, MATLAB)

Brown University

CSCI 1660, Intro to Computer System Security (Bash, Javascript)

ENGN 0931, Internet of Everything (C, Arduino)

ENVS 1580, Stewardship and Resilience

PLCY 2675, Science and Technology Policy

PLCY 1824K, The American Welfare State

PLCY 1400, Ethics and Public Policy

APMA 1690, Computational Probability and Statistics (MATLAB)

PLCY 1702A, Justice, Gender, and Markets

PLCY 1200, Policy Analysis / Program Evaluation

CSCI 1951F, Computers, Freedom, and Privacy

PLCY 2555, Environmental Policy

ECON 1130, Intermediate Mathematical Microeconomics

CSCI 1270, Database Management Systems (SQL)

PPAI 0100, Introduction to Public Policy
ECON 1620, Introduction to Econometrics
CSCI 0220, Discrete Structures / Probability
MATH 0540, Honors Linear Algebra
CSCI 0330, Introduction to Computer Systems (C)
MATH 0180, Intermediate Calculus
HIST 1781, Ideas in the US Since 1865
ECON 0110, Principles of Economics
CSCI 0160, Introduction to Algorithms / Data structures
PHYS 0070, Analytical Mechanics
CSCI 0150, Introduction to Programming / Computer Science (Java)

**Conference
Publications
(Refereed)**

Michael Jeffrey Daniel Hoefler, **Lucy Van Kleunen**, Cassandra Goodby, Lanea Blyss Blackburn, Priyanka Panati, Stephen Volda. 2021. The Multiplicative Patient and the Clinical Workflow: Clinician Perspectives on Social Interfaces for Self-Tracking and Managing Bipolar Disorder. *Designing Interactive Systems Conference 2021*, June 2021.

Justin Petelka, **Lucy Van Kleunen**, Liam Albright, Elizabeth Murnane, Stephen Volda, Jaime Snyder. 2020. Being (In) Visible: Privacy, Transparency, and Disclosure in the Self-Management of Bipolar Disorder. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, April 2020.

Shaun Wallace, **Lucy Van Kleunen**, Marianne Aubin-Le Quere, Abraham Peterkin, Yirui Huang, Jeff Huang. 2017. Drafty: Enlisting Users to Be Editors Who Maintain Structured Data. In *proceedings of the Fifth AAAI Conference on Human Computation and Crowdsourcing - HCOMP 2017*, Quebec City, Canada, October 2017.

Lucy Van Kleunen, Trent Green, Miranda Chao, Tiffany Citra, Carlene Niguidula. 2017. Design Considerations for a Large Display Touch Application in Informal Education. In: Hammond T., Adler A., Prasad M. (eds) *Frontiers in Pen and Touch. Human-Computer Interaction Series*. Springer. [conference presentation]

**Journal
Publications**

Lucy Van Kleunen, Brian Muller, and Stephen Volda. 2021. "Wiring a City" A Sociotechnical Perspective on Deploying Urban Sensor Networks. In *Proceedings of the ACM on Human-Computer Interaction, Volume 5, Issue CSCW1*, April 2021. [conference presentation]

**Workshop Papers,
Posters, and
Design Briefs**

Lucy Van Kleunen, Joel Holton, Daniel Strawn, and Stephen Volda. 2019. Poster: Designing Navigation Aides for Wildland Firefighters. 2019. In *Adjunct Proceedings of the 2019 ACM International Joint Conference on Pervasive and Ubiquitous Computing and the 2019 International Symposium on Wearable Computers*. London, United Kingdom. [poster presentation]

Lucy Van Kleunen and Stephen Volda. 2019. Challenges in Supporting Social Practices Around Personal Data for Long-Term Mental Health Management. 4th International Workshop on Mental Health and Well-being: Sensing and Intervention. UbiComp 2019.[workshop presentation]

Lucy Van Kleunen and Stephen Volda. 2019. Controlling Disclosure of Personal Health Data - Features that improve how patients with chronic disease manage access

to personal health data from self-tracking applications. Shorenstein Center Privacy Forecast 2019.

Lucy Van Kleunen and Stephen Volda. 2018. From personal to collective informatics. CSCW 2018 Workshop on Social Issues in Personal Informatics. [**workshop presentation**]

Professional Experience	Program Manager, Microsoft	Fall 2017 - Fall 2018
	Program Manager Intern, Microsoft	Summer 2016
	Student Developer, Brown Center for Digital Scholarship	Spring 2016
Service and Extracurricular Activities	Volunteer, United Campus Workers Political Committee	Summer - Fall 2020
	Student Volunteer, UbiComp 2019	Fall 2019, one week
	Diversity & Inclusion Committee, CU Boulder CS GSA	Spring 2019
	Volunteer Tax Preparer, United Way	Spring 2017
	Student Mentor, Women in Computer Science	2016-2017
	Co-Editor-in-Chief, The Triple Helix Science and Society Magazine	2015-2017
Collegiate Varsity Track & Field and Cross Country	2013-2017	