

JEFFREY M. BINDER

[address redacted]

extruded@gmail.com – jeffreymbinder.net – Twitter: [@JeffMBinder](https://twitter.com/JeffMBinder)

CURRENT POSITIONS:

Open Raven Research (Los Angeles, CA/remote) May 2022–
Security Researcher

Pennsylvania State University (University Park, PA) Aug. 2022–
Affiliate Fellow, Center for Humanities and Information

EDUCATION:

The Graduate Center, City University of New York (New York, NY) May 2018
PhD in English

Certificate in Interactive Technology and Pedagogy

Dissertation: “Symbols Purely Mechanical: Language, Modernity, and the Rise of the Algorithm, 1605–1862”

Advisor: Alexander Schlutz

New York University (New York, NY) May 2012
Master of Arts in English

Thesis: “Motivated Romanticism: Rhetoric, Cognition, and Herman Melville's Linguistic Turn”

Washington University in St. Louis (St. Louis, MO) May 2008
Bachelor of Arts in English, summa cum laude

Minor in Mathematics

Honors thesis: “Assertion-Through-Structure: The Degenerated Carnival in Joyce and Pynchon”

Rensselaer Polytechnic Institute (Troy, NY) Sep. 2003–May 2005
Coursework in Mathematics and Computer Science, GPA 3.94

PUBLICATIONS:

Book:

Language and the Rise of the Algorithm.

Forthcoming Dec. 7, 2022

In production with University of Chicago Press.

Peer-Reviewed Journal Articles:

Binder, Jeffrey M. “The Datafication of Culture: Romanticism and AI-Generated Poetry.” 2022
The Wordsworth Circle 53, no. 3 (Summer 2022): 354-73

Binder, Jeffrey M. “Romantic Disciplinarity and the Rise of the Algorithm.” 2020
Critical Inquiry vol. 46, no. 4, Summer 2020, pp. 813–34.

Binder, Jeffrey M. “The Eighteenth-Century Elocution Movement and Facebook: Reading Emotion Before and After the Subject.” *Media Culture and Society*. Published online Aug. 18, 2019. 2019

Binder, Jeffrey M. “‘The General Practice of the Nation’: Walt Whitman, Language, and Computerized Search in the Nineteenth-Century Archive.” *American Literature*, vol. 88, no. 3, Sep. 2016, pp. 447-75. 2016

Binder, Jeffrey M. and Collin Jennings. “‘A Scientifical View of the Whole’: Adam Smith, Indexing, and Technologies of Abstraction.” *ELH*, vol. 83, no. 1, Spring 2016, pp. 157-180. 2016

Binder, Jeffrey M. and Collin Jennings. “Visibility and Meaning in Topic Models and Eighteenth-Century Subject Indexes.” *Literary and Linguistic Computing*, vol. 29, no. 3, Sep. 2014, pp. 405-411. 2014

Book Chapters:

Binder, Jeffrey M. “Babbage and Algorithmic Thinking.” *The Cambridge Companion to Charles Babbage*, Invited edited by Lukas Verburgt, proposal accepted by Cambridge University Press.

Binder, Jeffrey M. “Alien Reading: Text Mining, Language Standardization, and the Humanities.” 2016
Debates in the Digital Humanities 2016, edited by Matthew K. Gold and Lauren F. Klein, University of Minnesota Press, 2016, pp. 201-217.

Online Writing:

Binder, Jeffrey M., and Collin Jennings. "Cultures of Visualization: Adam Smith's Index and Topic Modeling." *Association for Computers and the Humanities*, ach.org/2013/12/30/cultures-of-visualization-adam-smiths-index-and-topic-modeling. 2013

DIGITAL PROJECTS:**PromptArray**

<https://github.com/jeffbinder/promptarray>

Developer. A new method for controlling neural-network text generators that enables users to incorporate operators such as "or" and "not."

2021–

A Hundred Visions and Revisions

<https://github.com/jeffbinder/visions-and-revisions>

Developer. A computer program that rewrites poems to be about different topics using a neural network, maintaining the original rhyme and meter. This program is part of a creative–critical project in which I am exploring the relation of computational language models to ideas of banality.

2019–

The Distance Machine

<http://distancemachine.org>

Developer. A Web-based tool to identify words in a text that were uncommon at a given point in time, using data about historical word usage in Google Books; it also provides easy access to information from historical dictionaries.

2014–

The Networked Corpus

<http://www.networkedcorpus.com>

Developer, in collaboration with Collin Jennings. A computer program that allows for the visual comparison of multiple condensed representations of a text, including subject indexes and the results of the statistical method known as topic modeling.

2011–2016

bursts

<http://cran.r-project.org/web/packages/bursts>

Developer, maintainer. A package for the R statistical computing environment that implements Jon Kleinberg's burst detection algorithm, which can be used to identify periods of increased activity in a stream of data.

2012

SELECTED WORK EXPERIENCE:

Pennsylvania State University (University Park, PA)

Aug. 2018–May 2022

Postdoctoral Fellow, Center for Humanities and Information

Taught undergraduate courses on information theory and a graduate/postdoctoral colloquium about NLP methods; published two peer-reviewed articles and wrote the book *Language and the Rise of the Algorithm*, forthcoming with U. of Chicago Press.

The Graduate Center, City University of New York (New York, NY)

Aug. 2018–May 2022

Graduate Assistant

Developed the Distance Machine, a Web-based tool based on Python, PHP, JavaScript, D3, and MySQL that uses a statistical model trained on over 23GB of data to identify outliers in patterns of language change; published four peer-reviewed articles on literary applications of topic modeling and other NLP methods; taught undergraduate courses on writing and literature.

The Graduate Center, City University of New York (New York, NY)

Aug. 2015–May 2016

Digital Fellow

Managed the team that developed the initial curricula for the MA in Digital Humanities and MS in Data Analysis and Visualization degree programs at the Graduate Center; taught workshops on NLTK, MALLET, MySQL, regex, and other technical skills.

New York University School of Medicine (New York, NY)

Data Analyst

Sep. 2010–Aug. 2013

Created a database tracking articles that cite the institution's research publications, and developed a Web-based system for visualizing the citation and co-authorship networks.

Nature Publishing Group (New York, NY)

Editorial Data Analyst

Jan. 2009–Aug. 2010

Gathered and analyzed data on how people use the navigation features of online versions of journals, and developed an internal Web site with charts of the results.

TEACHING EXPERIENCE:

Pennsylvania State University (University Park, PA)

Fall 2019, Fall 2020, Spring 2022

What is Information? (Communication/IST 170N)

Course description (condensed): “What is Information?” considers the material and social nature of information in historical and contemporary contexts. Integrating perspectives from the social sciences and the humanities, the course prepares students for a world in which information plays an increasingly important social and political role. Co-taught with Josh Shepperd in Fall 2019 and with Keren Wang in Spring 2022.

Text Analysis and the Humanities (CHI Graduate/Postdoctoral Colloquium)

Spring 2019

Colloquium description (condensed): This colloquium explores the methodological and disciplinary implications of computational text analysis by examining case studies of Digital Humanities projects alongside theoretical, critical, and historical discussions of quantitative methods.

Hunter College, City University of New York (New York, NY)

Fall 2014; Spring 2015, 2016, and 2017

Introduction to Writing About Literature (English 220)

Course description (condensed): Analytical writing and close reading in British and American fiction, drama, poetry, and literary criticism, with an emphasis on further development of critical writing and research skills.

Expository Writing (English 120)

Fall 2015 and 2016

Course description (condensed): Through reading, discussions, writing, and rewriting, English 120 teaches students to generate, explore, and refine their own ideas; to analyze and evaluate intellectual arguments; to develop thesis statements and support them persuasively; and to write with standard acceptable grammar and coherence.

Rensselaer Polytechnic Institute (Troy, NY)

Data Structures and Algorithms (Computer Science 2300)

Fall 2004–Spring 2005

Teaching Assistant

This Sophomore-level class is a core part of the Computer Science curriculum. As an undergraduate TA, I assisted students with lab assignments and graded their work.

GRANTS AND AWARDS:

The Robert Adams Day Prize for the Best Dissertation Involving Interdisciplinary Work 2018

New Media Lab History and Public Health Award for “Reading With Emotion in the Eighteenth Century” 2018

CUNY Provost’s Digital Innovation Grant for “The Distance Machine” Fall 2016–Spring 2017

Mellon Digital Scholarly Publishing Fellowship Fall 2015–Spring 2016

CUNY ARC Student Fellowship for “The Distance Machine” Fall 2014

NYU Digital Commons Initiative Grant for “The Networked Corpus” Fall 2012–Spring 2013

NYU DCI Travel Grant, HathiTrust Research Center UnCamp, Indiana University 2012

Highest Distinction in English, Washington University 2008

Scholarship, James Joyce Summer School, University College Dublin 2007

INVITED PRESENTATIONS:

“AI Ethics and Racial Justice.” 2021

Sapphire Leadership Academic Program, Penn State University (University Park, PA)

“Implementing Historical Algorithms.” <i>Columbia University Python User Group</i> (New York, NY)	2019
“Poetry and Science Before the ‘Two Cultures’: William Wordsworth and George Boole.” <i>PSU Information + Humanities Conference</i> (University Park, PA)	2018
Panel Participant: “Fuzzy Data: Coding the Humanities.” <i>Hunter College Center for Teaching and Learning (ACERT) Seminar</i> (New York, NY)	2017
Panel participant: “Books Matter: Circulating Digital and Printed Texts.” <i>CUNY GC Friday Forum</i> (New York, NY)	2015
CONFERENCE PARTICIPATION:	
“AI and Standardized Testing: From Imitation to Scoring.” <i>Society for the History of Technology (SHOT) 2022</i> (New Orleans, LA)	Scheduled 2022
“‘Mere Nonsense and Unintelligible Jargon’: Clarity, Confusion, and Deception in Eighteenth-Century Mathematics.” <i>American Society for Eighteenth-Century Studies (ASECS) 2022</i> (Baltimore, MD)	2022
“The Politics of Descriptivism in the Age of Artificial Intelligence.” <i>Modern Language Association (MLA) 2022</i> (Washington, DC/Online)	2022
“The Anti-Poetics of Neural-Network Language Models.” <i>Modern Language Association (MLA) 2021</i> (Online)	2021
“Hobbes, Wallis, and the Muteness of Symbols.” <i>International Society for Intellectual History (ISIH) 2020</i> (Florence, Italy)	Conference Cancelled 2020
“Intelligence and the Algorithmically Generated Poem: John Peter, Joseph Addison, Ada Lovelace” <i>North American Society for the Study of Romanticism (NASSR) 2019</i> (Chicago, IL)	2019
“Babbage and Poe on the Incomprehensibility of Algorithms.” <i>Society for Literature, Science, and the Arts (SLSA) 2018</i> (Toronto, ON)	2018
“Wordsworth, Disciplinarity, and ‘Poetical Science.’” <i>North American Society for the Study of Romanticism (NASSR) 2018</i> (Providence, RI)	2018
“Lord Stanhope, Coleridge, and the Enlightenment Reasoning Machine.” <i>American Comparative Literature Association (ACLA) 2018</i> (Los Angeles, CA)	2018
“‘Prejudice’ and the Idea of Culture in the Eighteenth Century: Condillac, Maupertuis, Herder.” <i>American Society for Eighteenth-Century Studies (ASECS) 2018</i> (Orlando, FL)	2018
“The Archaeology of Novelty: Revolution, Neology, and the Politics of Reading.” <i>Northeastern Modern Language Association (NEMLA) 2017</i> (Baltimore, MD)	2017
“The Distance Machine: A New Tool for Visualizing Language Change.” <i>ADE STS 2015 Joint Conference</i> (Lincoln, NE)	2015
“‘A Talisman of Superstition’: Coleridge and the Prophetic Machine.” <i>2015 CUNY English Student Association Conference: Trance</i> (New York, NY)	2015
“Cultures of Visualization: Adam Smith’s Index and Topic Modeling.” With Collin Jennings. <i>Modern Language Association (MLA) 2014</i> (Chicago, IL)	2014
“18th- and 21st-Century Genres of Topical Knowledge.” Written with and presented by Collin Jennings. <i>DH 2013</i> , University of Nebraska (Lincoln, NE)	2013
“The Networked Corpus.” With Collin Jennings. <i>THATCamp NYC</i> , Fordham University (New York, NY)	2012
“Pluralism, Voting, and the Universal.” <i>Strategies of Critique</i> , York University (Toronto, ON)	2011

ACADEMIC SERVICE:

Selection Committee, Center for Humanities and Information, Penn State University Fall 2019–Spring 2022
Took part in reviewing applications for predoctoral, postdoctoral, and faculty fellowships.

Writing Across the Curriculum Fellow, Queens College Fall 2017–Spring 2018
Conducted interviews for an environmental study of the writing centers across the CUNY system; performed data analysis and assisted in writing a report about the availability of writing intensive courses in each major at Queens College.

Member, Website Committee, English Students Association, The Graduate Center Fall 2017–Spring 2018
Responsible for updating and improving the English Students Association website.

Member, CUNY Graduate Center Digital Fellows Fall 2015–Spring 2016
Assisted in designing the tentative curricula for the new MA in Digital Humanities and MS in Data Analysis and Visualization degree programs at the Graduate Center. Taught workshops on text analysis, database management, and other topics in digital humanities.

Peer Reviewing

Essays in Romanticism

Digital Scholarship in the Humanities

SKILLS:

Programming languages: C/C++, Swift, Objective-C, Python, R, PHP, JavaScript, Scheme, Haskell

Markup and database languages: HTML, XML, TEI, CSS, SQL, LaTeX

Graphics and audio: Photoshop, Illustrator, Audacity

Languages: French (intermediate), German and Latin (reading knowledge)

REFERENCES:

Eric Hayot, Distinguished Professor of Comparative Literature and Asian Studies, Pennsylvania State University
Email: ehayot@psu.edu

Alexander Schlutz, Associate Professor of English, The Graduate Center, CUNY
Email: aschlutz@jjay.cuny.edu

Matthew K. Gold, Associate Professor of English and Digital Humanities, The Graduate Center, CUNY
Email: mgold@gc.cuny.edu

Joshua Wilner, Professor of English and Comparative Literature, The Graduate Center, CUNY
Email: jwilner@gc.cuny.edu