Jeffrey Power Jacobs

PhD Candidate, Political Science, Columbia University

email: jpj2122@columbia.edu
web: https://cs.stanford.edu/~jjacobs3
Github : jpowerj
cell: +1 202-630-8111

Research Interests

Political Theory: Intellectual History (French Revolution, Cold War), Marxism, Republicanism
Computer Science: Natural Language Processing, Social Network Analysis, Machine Learning
Economics: Monopsony in Online Labor Markets, Law & Economics, Evolutionary Game Theory

Education

Columbia University — New York, NY, USA

PhD in Political Science — Expected May 2021
Major Field: Political Theory
Minor Field: Quantitative Methods

MPhil in Political Science — May 2018
MA in Political Science — May 2016

Stanford University — Palo Alto, CA, USA

MS in Computer Science — Jun 2014
Artificial Intelligence, Biocomputation, and CS Theory Concentrations

University of Maryland — College Park, MD, USA

BS in Computer Science, *BS in Mathematics*, *BA in Economics* — May 2012
Minor in International Development and Conflict Management

Dissertation

"*'Our Word is Our Weapon'*: Text-Analyzing Ideological Struggle from the French Revolution to the Palestinian Intifadas"
Committee: Suresh Naidu (Chair), Jon Elster, Joshua Simon

Peer-Reviewed Publications

E. Ash, **J. Jacobs**, B. MacLeod, S. Naidu, and D. Stammbach. "Unsupervised Extraction of Workplace Rights and Duties from Collective Bargaining Agreements", *20th IEEE International Conference on Data Mining – International Workshop on Mining and Learning in the Legal Domain (ICDM-MLLD)*. 2020. https://elliottash.com/wp-content/uploads/2020/09/Ash-Jacobs-MacLeod-Naidu-Stammbach.pdf

A. Dube, **J. Jacobs**, S. Naidu, and S. Suri. 2020. "Monopsony in Online Labor Markets." *American Economic Review: Insights*, 2(1): 33–46. https://www.aeaweb.org/articles?id=10.1257/aeri.20180150

D. Shahaf, J. Yang, C. Suen, **J. Jacobs**, H. Wang, and J. Leskovec. "Information Cartography: Creating Zoomable, Large-Scale Maps of Information". *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*. 2013. metromaps.stanford.edu

C. Duan, H. Gao, **J. Jacobs**, and W. Xu. "Metaheuristic Approaches to Resource Scheduling in Heterogeneous Wireless Networks". *Joint Mathematics Meetings* (Poster Presentation). 2012.

J. Jacobs and J. Reggia. "Evolving Musical Counterpoint: The Chronopoint Genetic Algorithm". *Proceedings of the First International Workshop on Evolutionary Music, IEEE Congress on Evolutionary Computation*, 11–16. 2011.

Selected Writings

J. Jacobs. "Automated Content Analysis and the 1789 *Cahiers de Doléances*". *Phenomenal World* Blog, Jain Family Institute (Forthcoming). 2021. https://phenomenalworld.org/

Invited Talks

"How to Do Things with Translations: Cross-Lingual Semantic Phrase Embeddings for Translation Analysis"

Theories of Translation Workshop, Ohio State Univ., Columbus, OH, USA — Feb 2021

Text as Data Conference (TADA 2018), Seattle, WA, USA — Sep 2018

"*Fi Hadal Habs*: Text-Analyzing the Underground Communiqués of the First Palestinian Intifada"

Critical Media and Digital Studies Workshop, Columbia University — Oct 2018

"What We Talk About When We Talk About Influence"

7th London Summer School in Intellectual History, QMUL, London, UK — Sep 2018

"Automated Content Analysis and the 1789 *Cahiers de Doléances*"

5th Annual Politics and History Conference, Barcelona, Spain — Jun 2018

"Word Embeddings: Can Vectors Encode Meaning?" (w/Katy Gero)

NYC Digital Humanities Week, New York, NY, USA — Feb 2018

"Visualizing Polarization in the US Courts of Appeals, 1925-2002" (w/Elliott Ash, Daniel Chen)

2017 APSA Annual Meeting, San Francisco, CA, USA — Aug 2017

Research Experience

Columbia School of International and Public Affairs (SIPA) — New York, NY, USA
RA, Institute for Social and Economic Research and Policy (ISERP) — Jan 2016 – Dec 2019

University of California, Berkeley — Berkeley, CA, USA
Research Data Analyst, Dept. of Economics & Haas School of Business — Jun 2014 – Jun 2015

Stanford University Department of Economics — Palo Alto, CA, USA
Research Assistant, Development Economics Group — Sep 2013 – Jun 2014

Stanford University Computer Science Department — Palo Alto, CA, USA
Research Assistant, Stanford Network Analysis Project (SNAP) — Sep 2012 – Apr 2013

National Institute of Standards and Technology (NIST) — Gaithersburg, MD, USA
Summer Research Fellow, Quantum Communications Lab — May 2012 – Aug 2012

University of Maryland Dept. of Computer Science — College Park, MD, USA
Research Assistant, Algorithms and Theory Group — Aug 2011 – Aug 2012

Hong Kong University of Science and Technology — Hong Kong
Summer Research Fellow, Dept. of Mathematics — May 2011 – Aug 2011

University of Maryland Dept. of Computer Science — College Park, MD, USA
Research Assistant, Biologically-Inspired Computing Group — Aug 2010 – May 2011

University of Illinois at Urbana-Champaign Urbana-Champaign, IL, USA
Summer Research Fellow, Brain-Computer Interface Lab May 2010 – Aug 2010

Professional Service

Program Committee, NAACL-HLT 2021 Student Research Workshop June 2021
Program Committee, AACL-IJCNLP 2020 Student Research Workshop Sep 2020
Program Committee, ACL 2020 (Association for Computational Linguistics) Jul 2020
Program Committee, 2020 ACL Student Research Workshop Jul 2020
Program Committee, 2019 ACL Student Research Workshop Jul 2019
Discussant, "Real-World Impacts of Political and Legal Texts", Princeton Univ. May 2017
Referee, 2013 IEEE Symposium Series on Computational Intelligence Jun 2013

Awards & Achievements

Distinction in Quant. Methods (Field Exam), Columbia Political Science Dept. Jan 2018
Departmental Honors, University of Maryland Department of Computer Science May 2012
Departmental Honors, University of Maryland Department of Mathematics May 2012
Senior Outstanding Achievement Award (4.0 major GPA), UMD Dept. of Econ. May 2012
2011 Project of the Year, UMD QUEST Honors Program Senior Conference Dec 2011
QUEST Business & Engineering Honors Fellow, Smith Sch. of Business Aug 2009 – May 2012
Science, Technology, and Society Scholar, Clark School of Engineering Aug 2008 – May 2012
Dean's List, College of Computer, Mathematical, and Natural Sciences Aug 2008 – May 2012

Teaching Experience

New York University

DS-UA 111: Data Science for Everyone Spring, Summer-I, Summer-II, Fall 2020

Columbia University

POLS 4700: Mathematical Methods for Political Science Fall 2018
POLS 4710: Quantitative Political Research Fall 2017
POLS 1201: Introduction to American Politics Fall 2016

Stanford University

CS109: Introduction to Probability for Computer Scientists Winter 2014, Spring 2014
CS90SI: Learn Web Development Through Nonprofit Projects Autumn 2013
(Developed curriculum for new 1-credit Computer Science course)
CS103: Mathematical Foundations of Computing Autumn 2012, Winter 2013, Autumn 2013
CS221: Artificial Intelligence Principles and Techniques Summer 2013

University of Maryland

CMSC 420: Data Structures Spring 2012
CMSC 250: Discrete Mathematics Fall 2011
MATH 003: Developmental Mathematics Fall 2010, Spring 2011
CMSC 132: Object-Oriented Programming II Spring 2010

Workshops/Short Courses

Jain Family Institute Seminar New York, NY

Let's Get Free: A Gentle Introduction to Analytical Political Theory (Postponed to 2021)
(Postponed due to COVID-19, draft of lecture notes available on GitHub)

Code for Palestine Summer Courses West Bank and Gaza, Occupied Palestinian Territories

Design Thinking for Mobile App Development Summer 2019
Web Development with Flask Summer 2018
Mobile App Development with Android Studio Summer 2017

Stanford Splash! Program Palo Alto, CA, USA

Game Theory and Mechanism Design Autumn 2013, Autumn 2014
Pledge No Allegiance: America Through A Hip Hop Lens Autumn 2014

Technical Skills

Languages (In order of usage): Python, R, Stata, JavaScript, HTML/CSS, PHP, MATLAB, Shell Scripting, Java, C, C#, C++, Ruby, SQL

Frameworks/Packages: [**Data Science**] Pandas, NumPy, tidyverse, ggplot2, RStan [**Deep Learning**] PyTorch, Keras [**NLP**] Gensim, spaCy, CoreNLP, Mallet [**Machine Learning**] scikit-learn [**Network Analysis**] NetworkX, Gephi [**Web Development**] Node.js, D3, Flask, MySQL, MongoDB [**Cloud Computing**] AWS (EC2, S3), Google Cloud Platform [**Misc**] Qualtrics, Oracle VM VirtualBox, Nvidia CUDA Toolkit

Languages

English (Native), Spanish (Working Proficiency; 6-month immersion in Chiapas, Mexico; 3-month immersion in Havana, Cuba), Arabic (Reading Proficiency; Multiple-year immersion in Occupied Palestinian Territories), French (Limited Working Proficiency; 1 year immersion in Paris, France)

References

Suresh Naidu
Professor of Economics and Public Affairs
Columbia University
New York, NY, USA
sn2430@columbia.edu

Jon Elster
Robert K. Merton Professor of the Social Sciences, Columbia University
New York, NY, USA
je70@columbia.edu

Joshua Simon
Assistant Professor of Political Science
Columbia University
New York, NY, USA
jds2266@columbia.edu

Elliott Ash
Assistant Professor of Economics
ETH-Zürich
Zürich, Switzerland
ashe@ethz.ch