Natalie Ahn

EDUCATION

Ph.D. in Public Policy, 2012 - 2018
University of California Berkeley, Goldman School of Public Policy (GSPP)

M.A. in International Relations and International Economics, 2006
Johns Hopkins University, School of Advanced International Studies (SAIS)

B.A. in International Relations, Minor in Computer Science, 2004
Stanford University

INDUSTRY EXPERIENCE

Content Data Science Lead
Nextdoor, San Francisco, CA, Aug 2019 - Dec 2021

- Managed a team of six data scientists, driving analysis, experimentation and model building for content creation and consumption at Nextdoor.
- Provided technical leadership in machine learning, natural language processing, causal inference, and related methodologies.

Head of Data Science & Machine Learning
Hoodline / Pixel Labs (acquired by Nextdoor), SF, CA, Jan - Aug 2019

- Grew the data science team from two to five, recruiting team members with a variety of backgrounds from data journalism to engineering.
- Lead the content automation project, turning public and partner data into templatized articles about local business, events, crime and government.

Data Scientist
Hoodline / Pixel Labs, SF, CA, June 2018 - Jan 2019

- Developed automated templates, consisting of Python code, ML models, SQL queries and Airflow DAGs, to turn data into local news articles.
- Worked with editors to compose narrative output that would vary with the input data, highlighting meaningful and newsworthy developments.

TEACHING EXPERIENCE

Lecturer, MIDS Program
UC Berkeley, School of Information, Aug 2021 - Present

- Applied Machine Learning
- Natural Language Processing with Deep Learning

Workshop Instructor
UC Berkeley, Social Science Data Laboratory (D-Lab), 2016 - 2017

- Programming Fundamentals
- Python for Everything
- NLP with NLTK
- Introduction to Regular Expressions

Graduate Student Instructor

UC Berkeley, International & Area Studies Program, 2013 - 2014
- Contemporary Theories of Political Economy (Outstanding GSI Award)
- Intermediate Macroeconomic Theory

Section Leader (Undergraduate TA, CS198)
Stanford University, Computer Science Department, 2001-2002
- Programming Methodologies
- Programming Abstractions

RESEARCH EXPERIENCE

Doctoral Research
UC Berkeley, Goldman School of Public Policy, 2014 - 2018
- Conducted independent research in computational social science. Extensive data collection, processing, measurement and analysis of political institutions and events, including extracting events from text.
- Developed open source tools in Python for Spanish text morphological analysis, Wikipedia search and entity labeling, person name and document matching, and statistical model sampling and visualization.

Graduate Student Researcher, Dr. Sarah Anzia
UC Berkeley, Goldman School of Public Policy, 2014 - 2017
- Administered several national surveys of local politicians. Collected and coded national sample of municipal financial records via FOIA requests. Cleaned and analyzed U.S. population and local government census data.

Project Supervisor, Undergraduate Research Apprentice Program
UC Berkeley, Goldman School of Public Policy, 2016 - 2017
- Supervised three undergraduate research assistants, providing guidance and mentorship in computational social science research.

GOVERNMENT EXPERIENCE

Interagency Transition Advisor / Foreign Policy Advisor
U.S. Department of State, Washington, DC and Baghdad, Iraq, 2010 - 2011
- Served in the Bureau of Near Eastern Affairs in Washington and as State Dept advisor to the Deputy Commanding General of U.S. Forces-Iraq.
- Provided political analysis and policy proposals, supported stabilization and interagency transition efforts to assist U.S. military departure.

Political-Military Affairs Officer
U.S. Embassy, Baghdad, Iraq, 2008 - 2009
- Lead role in planning and implementing key political-military efforts in Iraq, including police development, nonproliferation compliance, and election security, working with U.S., Iraqi Government and international partners.

JOURNALISM EXPERIENCE

Editor and Producer of PostGlobal
WashingtonPost.Newsweek Interactive, Washington, DC, 2007

- Coordinated, edited, and published expert panel blog and discussion forum on foreign policy. Worked with developers to improve interactivity.

Staff Reporter, Washington Bureau
Asahi Shimbun, Washington, DC, 2006 - 2007
- Covered the Pentagon, Senate and House Armed Services Committees, as a local reporter for a leading Japanese daily newspaper.

Researcher, Foreign Desk
Caijing Magazine, Beijing, China, Summer 2005
- Wrote news magazine articles on international security events; contributed to English-language coverage of business and finance.

PAPERS

"Expansions of Executive Authority: Government Leaders' Near-Term Pressures and Long-Term Fates." *PhD Dissertation, Goldman School of Public Policy, UC Berkeley.* 2018.

"Inducing Event Types and Roles in Reverse: Using Function to Discover Theme." *Proceedings of the workshop on Events and Stories in the News, Association for Computational Linguistics (ACL).* 2017.

"Comparing NLP Methods for Identifying Policy Decisions in Government Documents." *Paper presented at the 2017 PoliInformatics Workshop*. 2017.

"Using Automated Event Extraction to Identify Expansions of Authority in Executive Decrees." *Doctoral Consortium poster, Workshop on Natural Language Processing and Computational Social Science, EMNLP*. 2016.

"Measuring Consolidation of Power: Extracting Event Data from Laws and Decrees." *Paper presented at the annual meeting of the American Political Science Association*. 2016.

"Rule-Based Spanish Morphological Analyzer Built From Spell Checking Lexicon." *arXiv preprint, arXiv: 1707.07331 [cs.CL].* 2017. Code available at https://github.com/natalieahn/espmorfo.

ACADEMIC SERVICE

Reviewer for:
- ACL 2019, 2021, and 2023
- EMNLP 2018 - 2023 (Best Reviewer Award 2018)
- NLP+CSS Workshops at ACL 2017, NAACL 2019 and EMNLP 2020
- IC2S2 2018, 2019 and 2020

SKILLS

Programming languages: Python, SQL, some R and C/C++
Methods: machine learning, natural language processing, causal inference