## **Natalie Ahn**

**CONTACT** 

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**EDUCATION** 

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

Fields: Comparative Politics, Political Economy

Johns Hopkins University, School of Advanced Int'l Studies (SAIS)

M.A. in International Relations, 2006

Concentrations: Strategic Studies, International Economics

Stanford University

B.A. in International Relations, 2004

Graduated with Honors; Minor in Computer Science

**INDUSTRY EXPERIENCE**  Data Science Lead, Content Understanding

Nextdoor, San Francisco, CA, Aug 2019 – Present

- Manage a team of six data scientists, driving analysis, experimentation and model building for content creation and consumption at Nextdoor.
- Provide technical leadership in machine learning, natural language processing, causal inference, and related methodologies.
- Lead content understanding projects, building models, data tables and automated pipelines, planning and coordinating across product teams.

Head of Data Science & Machine Learning Hoodline / Pixel Labs (acquired by Nextdoor), San Francisco, 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, San Francisco, 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.

# **EXPERIENCE**

Workshop Instructor, Social Science Data Laboratory (D-Lab) University of California, Berkeley, 2016 – 2017

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

**TEACHING** 

Graduate Student Instructor, *International and Area Studies Program* University of California, Berkeley, 2013 – 2014

- Contemporary Theories of Political Economy (Outstanding GSI Award)
- Intermediate Macroeconomic Theory

Section Leader (Undergraduate TA, CS198), *Computer Science Department* Stanford University, 2001 – 2002

- Programming Methodologies
- Programming Abstractions

## RESEARCH EXPERIENCE

# Doctoral Research, GSPP

University of California, Berkeley, 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 vizualization.

Graduate Student Researcher, Dr. Sarah Anzia, *GSPP* University of California, Berkeley, 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* University of California, Berkeley, 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 analysis of political developments, 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, inc. 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 affairs, hosted by David Ignatius and Fareed Zakaria.

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 AND

"Expansions of Executive Authority: Government Leaders' Near-Term PRESENTATIONS 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.

#### **SKILLS**

Programming Languages: Python, SQL, R, C/C++ Python packages: pandas, numpy, scipy, scikit-learn, keras, tensorflow, spaCy, NLTK, gensim, huggingface/transformers, matplotlib, plotly Platforms/tools: Github, AWS, Google BigQuery, Airflow, Looker Methods: machine learning, natural language processing, experimentation Natural Languages: Native English, Proficient Spanish

# FELLOWSHIPS, AFFILIATIONS AND AWARDS

Dissertation-Year Fellowship, Graduate Division, UC Berkeley, 2017-2018 Associated Researcher, FLACO Ecuador, 2016

Visiting Researcher, Pontificia Universidata Católica del Perú, 2015 Outstanding Graduate Student Instructor Award, UC Berkeley, 2014 Humane Studies Fellowship, Institute of Humane Studies, 2013-2015

Graduate Division Summer Grant, UC Berkeley, 2014 Faculty Summer Research Grant, UC Berkeley, 2013

Policy Fellowship, Nuclear Science and Security Consortium, 2012-2013

Expeditionary Service Award, U.S. Department of State, 2011

Outstanding Civilian Service Award, U.S. Department of the Army, 2011

## ACADEMIC SERVICE

# Reviewer for:

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