

Laila A. Wahedi

lwahedi@gmail.com | Wahedi.us | github: Lwahedi
linkedin.com/in/laila-wahedi-phd-46ab099/ | research.facebook.com/people/wahedi-laila-a/

Skills (Technical)

- **Programming:** Python, source control, Dataswarm (Meta's version of Apache Airflow), Docker
- **Data Mining and Processing:** SQL, spark, data pipelines, unstructured text data, web-scraping
- **Network Analysis:** graph mining, social network analysis at scale, system/ecosystem level thinking, clustering
- **Statistical/ML Models:** embeddings and latent spaces, natural language processing, machine learning, generalized linear regression models, hazard analysis, Bayesian statistics, multi-level modeling, parameter estimation
- **Domain Expertise:** illicit networks/hate and terror orgs, election risks, information ops and misinfo, fraud and deception, public benefit/societal impact work, defense, security studies/international relations and conflict processes, strategic force planning, feed ranking algorithms, forced migration

Experience

Tech Lead Software Engineer/ Research Scientist, Core Data Science, Meta April 2019-Present

- **Cross Functional Strategic Leadership:** Built trust & safety taskforce of ~30-50 across engineering, research, data science, investigations, product, and policy; to identify emerging, unhandled risks to users. E.g. led intel generation effort to build holistic threat assessment for US Midterm and Brazil Presidential elections, then built detection, provided research for new policy, and designed process to handle top priority risks ahead of and during the elections.
- **Tech led engineering teams** of 5-11. Developed and maintained ML tech stacks for launching graph mining models to mitigate most sophisticated or complex ecosystem-level risks identified and prioritized by cross-team taskforce.
- **Translate technical methods/concepts into accessible tooling** for non-technical users. E.g. Election monitoring tools, expanding investigation recall.
- **Full life cycle:** Research on effect of innovative mitigations, and translated findings back into personally building better product and policies. E.g. research on violating social movements to policy to building ML scaled detection.

Research Fellow, Massive Data Institute, McCourt School of Public Policy, Georgetown Uni. July 2017-April 2019

- Social scientist/data scientist on an engineering team, connecting social theory to cs methods, resulting in several publications. Domains: topic modeling of ISIS and al Qaeda rhetoric, predicting forced migration patterns with social media data, mapping online journalist networks, mapping influence operations, developing data blending techniques.
- Managed team of student researchers. Taught data science seminars.
- Skills: Large unstructured text data, social media data. Network analysis, hierarchical Bayesian modeling, sql databases, web-scraping scripts, blending noisy data.

Data Science for Social Good Fellow, Harris School, University of Chicago. Summer 2016

- Built AI system to process and prioritize incoming petitions to the Mexican government, allowing them to process 24.4% more petitions with given resourcing constraints, alleviating months-long backlog to provide support services.
- Skills: Processing unstructured text data into structured data, data pipelining, sql, machine learning models

National Science Foundation Fellow, Georgetown University September 2013- June 2017

- Research on rivalry and alliance networks of terrorist and rebel organizations. Taught seminar on Terror & Rebellion

Research Associate, Institute for Defense Analyses March 2013-March 2016

- Force planning strategy: Primary developer for million-dollar model to estimate the effect of different military force generation strategies on readiness for different grand strategies, and the cost for each. Used by office of the Sec Def and Service Headquarters in budget justifications.
- Fuel Price Volatility and Readiness: identified mechanisms by which price changes could impact unit readiness and how units adapt, finding no real impact. Shaped Navy acquisitions strategy.

Operations Research Analyst, Office of the Secretary of Defense/ Army HQ Oct 2011-January 2013

- Produced analysis and reports for Secretary of Defense on strategic tradeoffs in missile defense resulting in shift in missile defense posture in Europe.
- Evaluated service budget against Defense priorities and scientific viability for the Science and Technology, Missile Defense, and Land Forces Issue Teams as part of the Program Review process.
- Modeling future force requirements against costs and grand strategies

Molecular Biology Research. Lin Lab MIT | Oregon Health and Sciences Uni. 2006-2009

- Cell culture (neuronal, hela), animal culture, western and northern blotting, immunocytochemistry, and other assays, confocal microscopy, transgenics. Award for investigating role of IGF on cell death.

Publications Research and Reports: See full list at <https://wahedi.georgetown.domains/publications/>

Education

Georgetown University

PhD: Political Science. International Relations.
NSF Fellow, Hopper Fellow

Massachusetts Institute of Technology (MIT)

Masters of Science (MS) Political Science, (Security)
Bachelor of Science (BS) Political Science
Bachelor of Science Brain & Cognitive Sciences (neuro)

Awards and Distinctions

- Global Challenges Foundation New Shape Forum semi-finalist, 2019
- NSF GRFP Fellow, 2013-2017
- Data Science for Social Good Fellow 2016
- Hopper Fellow, 2016-2017 (teaching award)
- EITM Certification Scholarship Recipient 2015: Quantitative methods training
- Global Governance Futures Fellow, 2016-17: One of five delegates to represent the US at a summit on global governance.
- FedTech Fellow, Fall 2017: selective entrepreneurial incubator
- 2nd place award for a data visualization app. From MedImmune, at HopHacks Sp2016