Ekaterina Kravtchenko

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Citizenship: United States (Erwerbstätigkeit gestattet)

Summary: PhD researcher in Language Science and Technology with extensive industry experience, and skills in data collection, visualization, and analysis, looking for positions in data science and applied research employing rigorous experimental methods.

Education

Ph.D. Language Science and Technology (in progress); *Saarland University, Germany*; 2019 (anticipated).

M.A. Linguistics; *University of California, Santa Cruz*; 2013.

B.A. Linguistics & Germanic Studies; *University of Massachusetts, Amherst*; 2008.

Research and Work Experience

Saarland University, Saarbrücken, Germany; Department of Language Science and Technology

PhD Researcher; 2014–present.

- Created and programmed predictive probabilistic models of empirical language phenomena (WebPPL).
- Designed, programmed (JavaScript), and statistically analyzed data from crowdsourced behavioral experiments using multilevel modeling (Python, R); conducted and analyzed eye-tracking experiments.
- Created novel web-based method for empirically measuring the strength of listeners' pragmatic inferences from complex utterances, resulting in 2 papers, 6 conference presentations, and 2 invited talks.
- Organized statistics reading group focused on mixed effect models in R; PhD representative 2014-2017.

Intel Corporation, Hudson, MA; Linguistic Resource Group

Software Engineer: Linguist; 2013–2014.

- Created and co-managed a cross-site team of 6 linguists and computer scientists in systematically testing and guiding the development of linguistic software prototypes using Agile development methodology. Launched products include the Oakley Radar Pace.
- Co-developed an automated framework (Python) for rapid evaluation of software release functionality.
- Collected, organized, and evaluated corpus data (SQL) used for software evaluation and development.
- Managed software configuration, integration, and troubleshooting on multiple platforms and devices.

University of California, Santa Cruz; Linguistics Department

Masters Student; 2010–2013.

- Performed manual collection and detailed annotation of texts, and conducted advanced statistical analyses and visualization of experimental and corpus data (R).
- Designed, programmed, recruited for, and analyzed data from multiple web- and lab-based experiments.
- Provided empirical evidence for efficiency-based omission of linguistic elements in predictive contexts, resulting in 1 paper, 2 conference presentations, and 2 invited talks.

Harvard University, Cambridge, MA; Polinsky Language Processing Lab

Lab Manager and Research Assistant; 2008–2010.

- Coded, organized, and statistically analyzed data from cross-linguistic research on syntactic structure, resulting in 3 co-authored publications and 3 conference presentations.
- Programmed, recruited for, and designed stimuli for web- and lab-based experiments in English and Russian.
- Rapidly acquired skills in novel software and statistical packages, as required by project demands, and provided training to new research assistants as needed.

Research Publications

Kravtchenko, E., and Demberg, V. (2019). Informationally redundant utterances alter prior beliefs about event typicality. Under revision.

Kravtchenko, E., and Demberg, V. (2015). Semantically underinformative utterances trigger pragmatic inferences. In *Proceedings of the 37th Annual Meeting of the Cognitive Science Society* (pp. 1207–1212).

Kravtchenko, E. (2014). Predictability and syntactic production: Evidence from subject omission in Russian. In *Proceedings of the 36th Annual Meeting of the Cognitive Science Society* (pp. 785–790).

Polinsky, M., Gallo, C., Graff, P., **Kravtchenko, E.**, Morgan, A.M. & Sturgeon, A. (2012). Subject islands are different. J. Sprouse & N. Hornstein (Eds.), *Experimental Syntax and Island Effects* (pp. 286–309), Cambridge.

Polinsky, M., Gallo, C., Graff, P. & **Kravtchenko, E.** (2011). Subject preference and ergativity. *Lingua* 122(3): 267-277.

Xiang, M., Harizanov, B., Polinsky, M. & **Kravtchenko, E.** (2011). Processing morphological ambiguity: An experimental investigation of Russian numerical phrases. *Lingua* 121(3): 548-560.

Skills and Projects

Computer & Technical

Programming and Markup Languages: R (proficient; dplyr, ggplot2, lme4), Python (intermediate; pandas, scipy, matplotlib, scikit-learn), SQL (beginner-intermediate), JavaScript (beginner), WebPPL, LaTeX, HTML

Statistical Modeling: multilevel (mixed effect) models, linear and logistic regression, AN(C)OVA

Miscellaneous: git, vim, bash, adb, Atlassian products (JIRA, Confluence, Stash)

Data Collection and Analysis: RStudio, Tableau, Amazon MTurk, Experiment Builder, Praat, Ibex, SPSS

Operating Systems: Windows XP-10, Mac OS X, Linux (Ubuntu, Fedora)

Projects from Udacity Data Analyst & Machine Learning Nanodegrees

Exploratory data analysis with R: Used RStudio/tidyverse R packages to clean and explore large Prosper loan dataset. Identified, plotted, and discussed historical trends and correlations.

Data wrangling with Python: Used pandas and matplotlib to wrangle and visualize data gathered using the Twitter API. Wrote sample reports using analyzed data.

Data story telling with Tableau: Used Tableau to visualize relationships between several socio-economic variables and regional test scores, using the 2012 PISA dataset.

Udacity machine learning projects: Used linear regression, supervised learning, unsupervised learning, reinforcement learning, and deep learning (scikit-learn, Keras) to gain insights from a variety of datasets.

Languages

Native: English, Russian

Intermediate: German (C1)

Awards & Honors

National Science Foundation Graduate Research Fellowship Program, Honorable Mention; 2012.

Summer Research Fellowship; University of California, Santa Cruz; 2011, 2012.

Regents' Fellowship; University of California, Santa Cruz; 2010.

Hobbies

Hiking, rock climbing, {board|role-playing|computer} gaming.