ALEX B. FINE

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EXPERIENCE

MaxPoint Interactive, Inc August 2015 - Present
Data Scientist & Consumer Researcher *Morrisville, NC*

- Use machine learning techniques and massive, high-dimensional consumer data to help CPG manufacturers and retailers understand their customers more deeply.
- Leverage insights from data analysis to make specific predictions and recommendations to external customers.
- Develop scalable, flexible data-analytic software tools for internal customers.
- Aggressively stay abreast of market developments to contribute to product vision.
- Lead research collaborations with students and faculty from university partners.

The Hebrew University of Jerusalem
Department of Psychology September 2014 - July 2015
Postdoctoral Research Scientist & Statistics Instructor *Jerusalem, Israel*

- Used psychology experiments and machine learning techniques to better understand how humans learn complex patterns in visual and auditory input.
- Oversaw experiment design, data collection, and data analysis in a managerial capacity.
- Designed and taught a graduate-level course on data analysis using modern statistical software (R, Python).

University of Illinois
Department of Psychology June 2013 - September 2014
Postdoctoral Researcher *Champaign, IL*

- Examined how humans use knowledge of the social context to (unconsciously) make accurate inferences about language as they are hearing or reading it.
- Organized and led a well-attended seminar on data wrangling, analysis, and visualization in R for students, post-docs, and faculty.

University of Rochester
Department of Brain & Cognitive Sciences August 2008 - June 2013
PhD Student *Rochester, NY*

- Developed and carried out an original research program addressing how our brains overcome noise and ambiguity in the linguistic signal in order to understand spoken and written language?
- While teaching courses on programming, experiment design, and cognitive science, explained highly technical and complex material in an easy-to-understand way.

Boston University School of Medicine June 2006 - July 2008
Research Assistant *Boston, MA*

- Programmed and administered behavioral experiments addressing language development in children with autism and Williams syndrome.
- Helped present experimental findings to the public.
- Maintained relationships with families of children with developmental disabilities.

EDUCATION

University of Rochester *June 2013*
PhD in Brain & Cognitive Sciences (minor: Linguistics)
Awarded NSF Graduate Research Fellowship

University of North Carolina, Chapel Hill *May 2006*
B.A. in Linguistics & German
Thesis awarded Highest Honors

TECHNICAL SKILLS

Machine learning & Statistics	**Regression** (logistic, linear, multilevel) **Clustering** (K-means, DBSCAN, Gaussian mixture models), **Bayesian inference** **Ensemble learning**
Principal Languages	**Python** (scikit-learn, pandas, ibis, matplotlib, seaborn, statsmodels) **R** (dplyr, ggplot2, caret, data.tables, RImpala, lme4) **SQL** (sometimes life leaves us with little choice)
Dabbling Languages	**Julia**, **Scala**
Database Tools	**PostgreSQL**, **Impala**, **Hive**
Workflow Tools	**IPython Notebooks**, **RStudio**, **PyCharm**, **Git/Bitbucket**

SELECTED PUBLICATIONS

Fine, A. B., Shaffer, K., Wang, L., & Howes, J. Z. (submitted to KDD). "Balancing scale and intelligibility in models of sales data using ensemble learning".

Fine, A. B., & Jaeger, T. F. (2016). "The Role of Verb Repetition in Cumulative Structural Priming in Comprehension". *Journal of Experimental Psychology: Learning, Memory & Cognition.*

Fine, A. B., Frank, A., Jaeger, T. F., & Van Durme, B. (2014). "Biases in predicting the human language model". *Proceedings of the Association for Computational Linguistics.*

Fine, A. B., Jaeger, T. F., Farmer, T. A., & Qian, T. (2013). "Rapid Expectation Adaptation during Syntactic Comprehension". *PLoS ONE.*

Fine, A. & Jaeger, T. F. (2013). "Evidence for implicit learning in syntactic comprehension." *Cognitive Science.*

Fine, A. B., Qian, T., Jaeger, T. F., & Jacobs, R. A. (2010). "Syntactic Adaptation in Language Comprehension". *Proceedings of the Association for Computational Linguistics.*