Jared Lorince

jared.j.lorince@gmail.com | https://jlorince.github.io

EDUCATION

Joint Ph.D. in Cognitive Science and Cognitive Psychology 2010 – 2016
Indiana University, Bloomington

B.A. with high honors in Cognitive Science 2005 – 2009
University of California, Berkeley

TECHNICAL SKILLS

Statistical analysis, machine learning, and visualization: Python scientific analysis stack (Pandas, Scikit-learn, Numpy, Matplotlib, Bokeh/Datashader, etc.), Graphlab Create, Apache Spark

Text mining and Natural Language Processing: Proficient in parsing and analyzing large-scale (un)structured text data using Python NLTK, topic modeling, Word2Vec, and other tools.

Web data mining and databases: Web crawler development; experience with various database systems (MySQL, Hadoop/Hive, Redis)

Experimental design: Experience developing and testing hypotheses in observational data, in-lab psychological studies, and online research using Amazon Mechanical Turk

Additional skills: Multi-agent model design; network analysis; report writing (latex); web design tools (HTML, CSS, Javascript); other data analysis tools (R, Unix, Bash scripting)

PROFESSIONAL EXPERIENCE

Postdoctoral fellow, The Northwestern Institute on Complex Systems (NICO) 2016 – Present

Collaborating on multiple research projects in the areas of complex systems and computational social science, employing machine learning, text mining, and statistical methods. Projects include prediction of the emergence of new scientific fields and musical genres, analysis of gender differences in media consumption and production, and large-scale data visualization.

Data scientist, StumbleUpon.com 2015 – 2016

Lead developer of a framework in Apache Spark combining topic modeling and rating prediction for learning of user interest profiles and content recommendation on the SU Web discovery platform. Collaborated with personalization and engineering teams to develop models and integrate Spark with existing technologies and workflow.

Graduate student researcher, IU Adaptive Behavior and Cognition Lab 2010 – 2016

Developed models of online music listening and tagging behavior for characterization and prediction of listening patterns and understanding of user motivation. Built Web scrapers for collection of data and developed novel analytic approaches in Python, Graphlab Create, and Spark using cloud-based computational resources.

Data science intern, StumbleUpon.com Summer 2015

Researched and prototyped methods for identification of canonical user interest profiles. Utilized various tools for management and processing of data (Python, Hadoop/Hive, Graphlab, etc.). Surveyed literature on state-of-the-art methods in personalization and recommendation.

Associate instructor, Indiana University 2014 – 2015

Led two laboratory sections for course on research methods in psychology. Developed syllabus, presented course material, and provided students with detailed feedback on academic writing.

Graduate student researcher, IARPA SIRIUS Program 2011 – 2015

Contributed to development of an Intelligence Advanced Research Projects Activity (IARPA) funded serious video game that teaches players to mitigate negative decision making biases. Part of a multi-university team in collaboration with Applied Research Associates. Consulted on psychologically-backed gameplay modules and performed statistical analysis of heterogeneous player data.

Research scientist student, Yahoo! Labs User Intent Analysis Group 2011 – 2012

Developed a social Web search interface inspired by path-following in ecological contexts and performed evaluation in a user study.

AWARDS & HONORS

Graduate Research Fellow, Templeton Foundation "What drives human cognitive evolution?" grant (2016)
Accepted to Summer Institute on Bounded Rationality, Max Planck Institute for Human Development (2012)
Graduate Research Fellow, IARPA SIRIUS grant, Indiana University (2011)
Yahoo! Labs Faculty Research and Engagement Program grant recipient (2011)
National Science Foundation IGERT Fellowship, Indiana University (2010)
Cognitive Science departmental citation winner (top student in department), UC Berkeley (2009)
High distinction in general scholarship, UC Berkeley (2009)

RELEVANT COURSEWORK

Web Data Mining, Large Scale Social Phenomena, Bayesian Data Analysis, Choice Behavior, Multi-agent Modeling, Information Networks, Advanced Statistics in Psychology, Theory and Practice in Game Design, Math and Logic in Cognitive Science, Programming for Cognitive Science, Models in Cognitive Science

PROFESSIONAL SERVICE

Journal reviewer: ACM Transactions on Computer-Human Interaction; Topics in Cognitive Science (TopiCS); Behavioral Research Methods; Information Processing & Management
Program Committee Member: SocInfo 2016; IC2S2 2015-2016; Computational Social Science Workshop (ECCS 2014); WebSci 2014; ChASM workshop (WebSci 2014, SocInfo 2016).

SELECTED PUBLICATIONS

Lorince, J. (2016). Consumption of Content on the Web: An Ecologically Inspired Perspective (Doctoral dissertation)
Lorince, J. & Todd, P. M. (2016). Music Tagging and Listening: Testing the Memory Cue Hypothesis in a Collaborative Tagging System. In Jones, M. N. (Ed.), *Big Data in Cognitive Science: From Methods to Insights.*
Lorince, J., Zorowitz, S., Murdock, J., & Todd, P. M. (2015). The Wisdom of the Few? “Supertaggers” in Collaborative Tagging Systems. *The Journal of Web Science*.
Lorince, J., Joseph, K., & Todd, P. M. (2015). Analysis of music tagging and listening patterns: Do tags really function as retrieval aids? In *Proceedings of the 8th Annual Social Computing, Behavioral-Cultural Modeling and Prediction Conference*
Lorince, J., Zorowitz, S., Murdock, J., & Todd, P. M. (2014). “Supertagger” behavior in building folksonomies. In *Proceedings of the 6th Annual ACM Web Science Conference*
Lorince, J., Donato, D., & Todd, P. M. (2014). Path Following in Social Web Search. In *Proceedings of the 7th Annual Social Computing, Behavioral-Cultural Modeling and Prediction Conference*
Lorince, J., & Todd, P. M. (2013). Can simple social copying heuristics explain tag popularity in a collaborative tagging system? In *Proceedings of the 5th Annual ACM Web Science Conference*
Veinott, E. S., Leonard, J., Papautsky, E. L., Perelman, B., Stankovic, A., **Lorince, J.**, et al. (2013). The effect of camera perspective and session duration on training decision making in a serious video game. In *Proceedings of the 2013 IEEE Games Innovation Conference*
Mullinix, G., Gray, O., Colado, J., Veinott, E., Leonard, J., Papautsky, E. L., … , **Lorince, J.**, et al. (2013). Heuristica: Designing a serious game for improving decision making. In *Proceedings of the 2013 IEEE Games Innovation Conference*