

DAVID A. LINGENBRINK JR.

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Education

Cornell University, Ithaca, NY 2014 - 2019
Ph.D., Operations Research and Information Engineering GPA: 3.80

Relevant Graduate Coursework: Game Theory, Statistics, Stochastic Processes, Probability, Machine Learning, Mathematical Programming

Harvey Mudd College, Claremont, CA 2010 - 2014
B.S., Mathematics Dean's List (All Semesters) GPA: 3.59

Relevant Coursework: Data Structures and Program Development, Algorithms, Analysis, Measure Theory, Representation Theory, Complexity Theory, Abstract Algebra, PDEs, Financial Economics
Semester abroad in Moscow for *Math in Moscow* program with AMS scholarship.

Relevant Experience

Software Engineer, Bloomberg, New York, NY 2020 -

- Contributing to Apache Kafka-based derivatives volatility modeling system
- Migrating systems from Sun to Linux
- Leading reading group through machine learning basics course

Forecasting Internship, Amazon, New York, NY 2017

- Trained quantile regression model to verify neural network demand forecasts
- Model provided intuition for black box model

Machine Learning Internship, Bloomberg, New York, NY 2016

- Created language models using word2vec's distributed word representations
- Modified word2vec to use a one-sided context window

Software Development Internship, Amazon, Seattle, WA 2014

- Fully integrated a new data source into Amazon's outbound labor model
- Made UI and back-end tweaks to a internal labor model website

Mathematics Research, Harvey Mudd College 2012 - 2014

- Created fast Fourier transforms for matrices over finite fields
- Derived the Borda count as the average of all positional voting methods
- Added algorithms for handling polytomies to Jane, a computational biology tool for matching host and parasite evolutionary trees

Publications

D. Lingenbrink and K. Iyer, "Optimal Signaling Mechanisms in Unobservable Queues." *Operations Research*. Forthcoming.

First Place, INFORMS Junior Faculty Interest Group Paper Competition. 2017

D. Lingenbrink and K. Iyer, "Signaling in Online Retail: Efficacy of Public Signals." *Submitted*.

J. Anunrojwong, K. Iyer, and D. Lingenbrink "Persuading Risk-Conscious Agents: A Geometric Approach." *Submitted*.

S. Gutekunst, D. Lingenbrink, and M. Orrison, "The Mean(est) Voting System." *Math Horizons*. 2016; 24(1), 10-13.

Computer Proficiency

Python, C++, R, MATLAB, Mathematica, Java, Scala, L^AT_EX