

Daniel L. Klein

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Education

Brown University, Ph.D. Applied Mathematics

Providence, RI • September, 2015 (anticipated)

- Advised by Matt Harrison, with research focus on statistical inference in settings of extreme data sparsity or imbalance.
- TA for Intro Stats, Math Stats I/II, Recent Applications in Probability and Statistics.
- Organized and hosted speaker visits and meetings for Pattern Theory seminar.

Williams College, B.A. Mathematics and Biology

Williamstown, MA • June, 2006

- Departmental honors in Biology, with thesis “Understanding aggregation in the membracid *Publilia concava*: using models to disentangle processes”.

Work experience

TransForm Pharmaceuticals, Inc.

Lexington, MA • September 2006 – August 2008

Assistant Scientist, Scientific Computation

- Developed and deployed data integration software for laboratory automation platforms (HPLC, IR, spectrophotometer).
- Rapidly implemented ideas into software to support data analysis, molecular modeling, analytical chemistry method development, platform QA, etc.

Williams College, Dept. of Biology

Williamstown, MA • June – August 2005

Research Assistant

- Planned and implemented experimental design and data analysis for field research project.
- Participated in field work, data collection, and data entry.

University of Minnesota, Dept. of Ecology and Evolutionary Biology

Saint Paul, MN • June – August 2004

Research Intern (NSF supported)

University of Minnesota, Dept. of Ecology and Evolutionary Biology

Saint Paul, MN • June – August 2003

Research Intern

- Developed and analyzed numerical results from novel model for ecological community assembly model.
- Participated in field work, data collection, and data entry.

Relevant coursework

- Foundational computer science, e.g., Data Structures, Design/Analysis of Algorithms, and Programming Languages.
- Bayesian Stats, Biostats, graduate Math Stats I/II, graduate Probability/Stochastics, Recent Applications in Probability and Statistics.
- Seminars in Graphical Models and in Bayesian Nonparameterics.
- Several courses in Computational Biology, covering use of dynamic programming and approximation algorithms to efficiently learn structure from data.

Programming

- Python, R, C/C++, Matlab, Haskell, Scheme, Java.
- Experience with standard statistics, numerics, and visualization packages.
- Comfortable with software engineering stack (UNIX, git/svn, make, etc.), scientific computation stack (MPI, reproducible research, \LaTeX , etc.), web development stack (client-server, SQL, HTML, CSS, JavaScript, etc.), and cloud deployment stack (AWS/EC2/S3, Docker, etc.).