

# Daniel L. Klein

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## Education

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**Brown University**, Ph.D. Applied Mathematics

**Providence, RI • May, 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

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**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

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- 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 Nonparametrics.
- Several courses in Computational Biology, covering use of dynamic programming and approximation algorithms to efficiently learn structure from data.

## Programming

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- 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, L<sup>A</sup>T<sub>E</sub>X, etc.), and web development stack (client-server, SQL, HTML, CSS, JavaScript, etc.).

## Miscellaneous

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US citizen, no criminal record.