

Daniel L. Parton

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Technical Skills

Areas	Statistics and machine learning, scientific software development, data handling and visualization, databases, parallel computing, web development
Languages	Python (9 years), SQL, R, JavaScript, HTML5, bash. Some experience: C, C++, CUDA
Frameworks	Spark, Flask, SQLAlchemy, pandas, scikit-learn, scipy, conda, knockout.js, Bootstrap, d3
General	AWS, git, Docker, Travis CI, vim, web servers, L ^A T _E X, OS X, Linux, Windows

Experience

- 2015–pres ANNALECT, NEW YORK, NY
Data Scientist, Marketing Analytics
- Build machine learning models for digital ad targeting; production models show greatly improved conversion rate and CPA compared to standard targeting methods.
 - Audience analytics, providing insights for a wide range of marketing agencies and clients.
 - Implement infrastructure for data management (~ 100 TB datasets) and automation of analyses, and develop software utilities for modeling.
 - Joint supervision of junior data scientists and interns.
- 2012–2015 MEMORIAL SLOAN KETTERING CANCER CENTER, NEW YORK, NY
Postdoctoral Research Fellow, Computational Biology Center | *Advisor*: [John D. Chodera](#)
- Studied cancer-related proteins using GPU-accelerated simulations, clustering techniques, and Markov models.
 - Developed [Ensembler](#)—pipeline for high-throughput parallel generation of protein models
 - Developed [TargetExplorer](#)—database application with RESTful API and frontend web client.
 - Many other projects; published multiple papers; helped design a [HPC cluster](#) and an [integrated robotic platform](#) for biological experiments.
 - Accepted for [Recurse Center](#)—prestigious 3-month programming retreat. Worked on MSKCC research projects, focusing on scalable software design. Also studied topics in machine learning and computer science; completed a [Kaggle competition](#), and a [JavaScript game](#).
- 2011–2012 UNIVERSITY OF CHICAGO
Postdoctoral Scholar, Department of Chemistry | *Advisor*: [Gregory A. Voth](#)
- State-of-the-art computer simulations of biological systems. One first-author paper.
- 2007–2011 UNIVERSITY OF OXFORD
Graduate Student Researcher, Department of Biochemistry
Advisors: [Mark S. P. Sansom](#) (Oxford) and Ross Nobes (Fujitsu Laboratories of Europe)
- Physics-based molecular simulations of biological systems. Developed Python software tools, taught organic chemistry tutorials. Published multiple papers. Research presented at many national and international conferences, and in national scientific magazines.
- 2005–2007 UNIVERSITY OF BRISTOL AND GLAXOSMITHKLINE, UK
Undergraduate Researcher / Industrial Placement Student | *Advisor*: [Chris Willis](#)
- Member of medicinal chemistry teams at GSK (1 year) and Bristol (1 year).

Education

- 2007–2011 **D.PHIL. in Biochemistry**, University of Oxford
- 2003–2007 **M.SCI. in Chemistry with Industrial Experience**, University of Bristol, UK