

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

- Worked for central analytics firm of world's second-largest marketing holdings company.
- Developed machine learning models for digital ad targeting; production models show greatly improved performance compared to standard targeting methods.
- Led development of search marketing spend optimizer, which aims to maximize revenue based on spend allocation across channels. Original optimizer was first of its type at the company, and has now been rolled out for multiple clients, directly resulting in multiple \$100k revenue.
- Audience analytics, providing consumer insights for a wide range of marketing agencies and clients, often with tight deadlines.
- Implemented infrastructure for data management (~ 100 TB datasets) and code repository management; developed modeling software utilities and data dashboards.
- Led technical calls with high-value clients.
- Manager of one full-time data scientist, and multiple interns.

2012–2015 MEMORIAL SLOAN KETTERING CANCER CENTER, NEW YORK, NY
Postdoctoral Research Fellow, Computational Biology Center | *Advisor*: [John D. Chodera](#)

2011–2012 UNIVERSITY OF CHICAGO
Postdoctoral Scholar, Department of Chemistry | *Advisor*: [Gregory A. Voth](#)

2007–2011 UNIVERSITY OF OXFORD
Graduate Student Researcher, Department of Biochemistry | *Advisor*: [Mark S. P. Sansom](#)

- 8 years research on physics-based molecular simulations of biological systems, especially cancer-associated proteins. Published multiple papers (5 as first author). Research presented at many national and international conferences, and in national scientific magazines.
- Applied statistical and machine learning techniques, including clustering and Markov models, to a wide range of scientific problems. Developed multiple software tools in Python. Used and helped maintain GPU-accelerated code.
- Developed [Ensembler](#)—pipeline for high-throughput parallel generation of protein models
- Developed [TargetExplorer](#)—database application with RESTful API and frontend web client.
- Helped design a [HPC cluster](#) and an [integrated robotic platform](#) for biological experiments.
- Accepted for [Recurse Center](#)—prestigious 3-month programming retreat (2014). 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](#).
- Taught organic chemistry tutorials (Oxford).

Education

2007–2011 **D.PHIL.** in Biochemistry, University of Oxford

2003–2007 **M.SCI.** in Chemistry with Industrial Experience, University of Bristol, UK