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, LaTeX, 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 out-of-the-box targeting methods.
- Audience analytics, providing insights for a wide range of marketing agencies and clients.
- Implement infrastructure for data management ($\sim$ 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 biologial 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**