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

- Worked for central analytics firm of world's second-largest marketing holdings company.
- Developed machine learning models for market segmentation and digital ad targeting—the latter 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. First of its kind at the company; rolled out for multiple clients, directly resulting in multiple $100k revenue.
- Audience analytics, providing consumer insights for a wide range of marketing agencies and clients, often with tight deadlines.
- Implemented infrastructure for data management ($\sim$ 100 TB datasets) and code repository management; developed modeling software utilities and full-stack web apps.
- Have increasingly taken on management responsibilities, including including authoring of SOWs, and leading many in-person meetings with high-value clients.
- Manager of two full-time data scientists.

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 biologial 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**