B. Scott Perrin, Jr., Ph.D.

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SUMMARY

- Published computational biophysicist with strong analytical and critical thinking skills
- Designed and managed research projects involving large and diverse research teams
- Translated complicated research findings into clear graphics for publication
- Wrote python and HTML for production-ready software
- Wrote and awarded multiple competitive grants

EXPERIENCE

2011 – Present   **IRTA Postdoctoral Fellow**   NHLBI, NIH   Advisor: Richard W. Pastor
- Microsecond all-atom molecular dynamics simulations of membrane disruption by peptides
- Statistical and time series analysis of simulation trajectories
- Comparison of ensemble averages (including fluctuation bias) with experimental values
- Mentored two predoctoral IRTA fellows, received Postbac Distinguished Mentor Award

Summer 2011   **Predoctoral IRTA Fellow**   NHLBI, NIH   Advisor: Bernard R. Brooks
- Added reduction potential calculations to CHARMM Interface and Graphics (charmming.org)
- Developed and implemented a lesson teaching the reduction potential module
- Incorporated my python code and HTML templates into a Django framework

2005 – 2011   **Research Assistant**   Georgetown University   Advisor: Toshiko Ichiye
- Calculated the reduction potentials ($E°$) of iron-sulfur proteins with continuum electrostatics
- Demonstrated that the protein fold sets $E°$, while the sequence tunes $E°$
- Performed a bioinformatics analysis that identified sequence determinates of $E°$

2004 – 2005   **Intern**   Bristol-Myers Squibb   Advisor: Graham Poindexter
- Developed a method for product reclamation
- Submitted chemical entries to company database

SKILLS

Programming: **Python** (numpy, scipy, matplotlib, Django, Scikit-learn, MSMBuilder)**, Fortran, HTML, Javascript**
Software: **MySQL, Adobe CS5** (Illustrator, Photoshop, Acrobat Pro)**, Gimp, Gnuplot, Microsoft Office, Linux**
Chemistry: **CHARMM, CHARMMing, CHARMM-GUI, NAMD, VMD, PyMOL, Gaussian**
Other: **Peer Reviewed Publications** (Writing and Reviewing)**, Scientific Presentation, Grant Writing, Web Design**

EDUCATION

2011   **Doctor of Philosophy,** Chemistry, Georgetown University
2005   **Bachelor of Science**, Chemistry, University of Connecticut

AWARDS

2015   **Orloff Technical Advance Award**, NHLBI, NIH; *For the Development of CHARMMing*
2015   **Postbac Distinguished Mentor Award**, Office of Intramural Education & Training, NIH
2014, 2015   **Two 100,000 Node-hour Allocations on the Anton Supercomputer**; *Co-wrote applications*
2008 – 2009   **President**, Graduate Student Organization of Chemistry
2006   **Espenscheid Fellowship**; *Passed all Phase I Exams on First Attempt*
2004 – 2005   **Roland Ward Thesis Award**; *Best Undergraduate Thesis in Chemistry*
2004   **CBIA/Pfizer Fellowship**; *Undergraduate Summer Research Support*

PUBLICATION LIST AND FULL CV CAN BE FOUND AT http://perrinresearch.com/scottperrin/