Robert M. Raddi

Graduate Research Assistant in the Voelz lab at Temple University Philadelphia, PA

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Summary

- Proficient in various programming languages & packaging modules
- Able to construct simulation code from scratch (MCMC & MD)
- Strong statistical modeling (Bayesian Inference, Markov state models) & data analysis skills
- Research experience in Biophysics/Chemistry

Education

2018 - 2023 **Ph.D. Theoretical/Physical Chemistry, Temple University; Advisor: Dr. Vincent Voelz**

2013 - 2017 **B.S. Chemistry, Temple University** **ACS Certification;**

History/Experience

January 2020 - April 2020 **Teaching Assistant, Temple University**

- **Assignment:** Physical Chemistry of Biomolecules & Techniques of Chemical Measurement II

September 2019 - December 2019 Teaching Assistant, Temple University

- **Assignment:** Physical Chemistry of Biomolecules & General Chemistry I laboratory
- **Awards:** the Guy Allen award for outstanding teaching

May 2019 - September 2019 Graduate Research Assistant, Temple University

- Development of BICePs 2.0 & Was awarded Teaching in Higher Education Certification;

June 2019 - June 2019 Academic Intern for Computing & Statistics Workshop, Temple University

- This 2-week graduate level summer workshop of ~30 students was organized by Matthew Newby (Physics), Vincent Voelz (Chemistry) and Adrienn Ruzsinszky (Physics). I contributed to some lecture material (slides), helped students one-on-one and answered various questions regarding Python, Bash, Jupyter Notebooks, GitHub, etc. (basic programming fundamentals). Website: sites.temple.edu/compstat

January 2019 - April 2019 Teaching Assistant, Temple University

- **Assignment:** Chemistry for Engineers recitation & General Chemistry II laboratory

September 2018 - December 2018 Teaching Assistant, Temple University

- **Assignment:** General Chemistry I recitation & laboratory

December 2016 - September 2018 Undergraduate Research, Temple University

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Publications

1. BICePs 2.0: new tools for Bayesian Inference of Conformational Populations from Theory and Experiment. Yunhui

Ge*, Rob Raddi*, Vincent Voelz. In prep.

Skills & Languages

Primary Programming Languages: Python, C++, Bash, Visual Basic for Applications (Microsoft Excel macros)

Markup Languages: Markdown, HTML, LaTex

High performance computing (Owlsnest), **Distributed computing platform** (Folding@home)

Proficient with the following programs: LabView & AutoCAD (engineering software), Gromacs & OpenMM(molecular dynamics simulations), Chimera & VMD-Visual Molecular Dynamics (interactive molecular visualization), mMASS (Mass spectrometry data acquisition and processing), TopSpin (NMR data acquisition and processing)

Other Experience

December 2008 - September 2018 **Janitor/Handyman, Lords & Ladies Salon and Medical Spa**

- Responsible for the cleanliness of the floors each week
- Performed repairs and standard maintenance of beauty salon and apartment complex

August 2011 - March 2014 Detailer/Lot Attendant/Shuttle Driver, Peruzzi Nissan Buick GMC