# Robert M. Raddi

**Theoretical Chemist/Graduate Research Assistant**


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Robert Raddi


## *Summary*


I'm a theoretical chemist from the greater Philadelphia area who loves experiencing diverse cultures, meeting new people, hiking, and programming. The broad view of my research focuses on developing scientific software packages that use machine learning/physical based approaches to tackle problems in chemistry and structural biology. Currently, I work in the Voelz Lab as a graduate research assistant in pursuit of obtaining a Ph.D. in Theoretical/Physical Chemistry from Temple University.


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## *Skills*

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

**Markup Languages:** Markdown, HTML/CSS, LaTex

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

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## *Education*

**Temple University** Doctor of Philosophy - PhD, Theoretical Chemistry 2018 - 2023
Advisor: Dr. Vincent Voelz

**Temple University** Bachlors of Science — B.S, Chemistry; 2013 - 2017

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## *Publications*

1. **Raddi, Robert**, and Vincent Voelz. "Stacking Gaussian Processes to Improve pKa Predictions in the SAMPL7 Challenge." (2021).
2. Voelz, Vincent A., Yunhui Ge, and **Robert M. Raddi**. "Reconciling simulations and experiments with BICePs: a review." Frontiers in Molecular Biosciences 8 (2021): 325.
3. **Robert M. Raddi**, Yunhui Ge, and Voelz, Vincent A. "BICePs 2.0: new tools for Bayesian Inference of Conformational Populations from Theory and Experiment."
   **submitted**
4. **Robert M. Raddi**, Tim Marshall, Yunhui Ge, and Voelz, Vincent A. "BICePs RepX: Force Field Validation by Bayesian Inference."
   **in preparation**

5. **Robert M. Raddi**, Richard Baxter, and Voelz, Vincent A. "Reconciling simulated ensembles of Serotransferrin with experimental SAXS intensities."
   **in preparation**

## *History/Experience*

**2021**

**Jan. — Dec.**

Research Assistant
**Award: (Aug.) 1st place poster presentation at ACS EUS YCC Research Symposium**

**2020**

**Jan. — Dec.**

(May — Dec.) Research Assistant
(Jan. — Apr.) Teaching Assistant, Physical Chemistry of Biomolecules & Techniques of Chemical Measurement II

**2019**

**Jan. — Dec.**

(Sept. — Dec.) Teaching Assistant, Physical Chemistry of Biomolecules & General Chemistry I laboratory
**Awards: The Guy Allen Award for outstanding teaching.**
(May. — Sept.) Graduate Research Assistant
(June) Acedemic Intern for Computing & Statistics Summer Workshop, Temple University Physics department
(Jan. — Apr.) Teaching Assistant, Chemistry for Engineers recitation & General Chemistry II laboratory
**Certification: Teaching in Higher Education Certificate**

**2018**

**Sept. — Dec.**

Teaching Assistant, General Chemistry I recitation & laboratory