



2014 - 2016	Undergraduate Research Assistant, Centre College
Summer 2015	Summer Undergraduate Research Fellow, NIST Gaithersburg
Summer 2014	Summer Computational Chemistry Research Fellow, Centre College
2014 - 2015	Chemistry Department Undergraduate Tutor
2013 - 2015	Undergraduate General Chemistry Lab Teaching Assistant, Centre College

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## SCHOLARSHIP AND TEACHING

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### Teaching Experience

Fall 2023 - Present	Assistant Chemistry Professor teaching Physical Chemistry and Senior Seminar, Millsaps College
Fall 2022 - Fall 2023	Assistant Chemistry Professor teaching Physical Chemistry and Gen. Chemistry labs, Birmingham-Southern College
Fall 2021	Adjunct Chemistry Faculty teaching Gen. Chemistry, Concordia University
Fall 2019	Mentorship Program for Aspiring Chemistry Teachers (MPACT), University of Minnesota

### Volunteer Work

2018 - 2020	Teen Mentor and Tutor at People Serving People Shelter
2018 - 2020	Youth Mentor with Mentors For Success Youth on Probation Program
Summer 2018, Summer 2019, Summer 2021	Youth Track and Field Coach for Minneapolis Parks and Rec.

## Awards and Honors

- Nov. 2014                      2<sup>nd</sup> Place Kentucky Academy of Sciences Presentation
- Nov. 2015                      2<sup>nd</sup> Place NIST Reference Data Challenge
- Mar. 2020                      APS DCOMP March Meeting Travel Award

## Professional Organizations

- 2016 - present                Phi Beta Kappa National Honor Society
- 2017 - 2022                    Nanoporous Materials Genome Center
- 2017 - 2022                    Chemical Theory Center, University of Minnesota

## Conference Talks

- 8) Graham, D. S.; Wen, X.; Chulhai, D.; Goodpaster, J. D. "Huzinaga Projection Operator QM/QM Embedding for Complex Systems" ACS Spring Meeting, March 22nd, 2022.
- 7) Graham, D. S.; Wen, X.; Chulhai, D.; Goodpaster, J. D. "Absolutely Localized Open-shell WF-in-DFT Huzinaga Embedding" APS March Meeting, March 16th, 2021.
- 6) Graham, D. S.; Goodpaster, J. D. "Absolutely Localized Multi-reference DFT Embedding" University of Minnesota Mini March Meeting, March 12th, 2020.
- 5) Graham, D. S.; Goodpaster, J. D. "Absolutely Localized Huzinaga WF-in-DFT Embedding: Robustness and Applications" University of Minnesota Chemistry Graduate Student Research Symposium, Minneapolis, Minnesota, June 4th, 2019.
- 4) Graham, D. S.; Goodpaster, J. D. "Absolutely Localized Huzinaga WF-in-DFT Embedding: Robustness and Applications" ACS Great Lakes Regional Meeting , Lisle, Illinois, May 1-4, 2019.
- 3) Graham, D. S.; Chulhai, D. V.; Goodpaster, J. D. "Huzinaga Operator WF-in-DFT

Embedding” Nanoporous Materials Genome Center All Hands Meeting, Minneapolis, Minnesota, September 16, 2018.

- 2) Graham, D. S.; Muzyka, J. L. “LabPal: Chemical Information for Android” 251st ACS National Meeting, San Diego, California, March 13 - 17, 2016
- 1) Graham, D. S.; Muzyka, J. L. “Identifying MurA Inhibitors Using DOCK6 Screening” 100th Annual Kentucky Academy of Sciences Meeting, Lexington, Kentucky, November 14-16, 2014

### Poster Presentations

- 4) Graham, D. S.; Wen, X.; Goodpaster, J. D. “Huzinaga WF-in-DFT Embedding for Complex Open-shell Systems” Nanoporous Materials Genome Center Annual Meeting, Minneapolis, Minnesota, October 8-9, 2020.
- 3) Graham, D. S.; Chulhai, D. V.; Goodpaster, J. D. “Huzinaga Level-Shift Projection-based Embedding Method Analysis” Midwest Theoretical Chemistry Conference, Chicago, Illinois, June 21 - 23, 2018.
- 2) Graham, D. S.; Chulhai, D. V.; Goodpaster, J. D. “Rigorous Projection-based DFT Embedding Methodology” Nanoporous Materials Genome Center Phase II Kick-off Meeting, Minneapolis, Minnesota, October 8 - 9, 2017.
- 1) Graham, D. S.; Chulhai, D. V.; Goodpaster, J. D. “Analysis of Projection-based Embedding: Determining Error Origin by Individual Subsystem Energies” Minnesota Workshop on ab initio Modeling in Solid State Chemistry, Minneapolis, Minnesota, July 12th, 2017

### Publications

- 5) Graham, D. S. Absolutely Localized Huzinaga Projection Based Embedding for Efficient and Accurate Molecular Modeling. PhD Dissertation. University of Minnesota: Minneapolis, MN, 2022
- 4) Graham, D. S.; Wen, X.; Goodpaster, J. D. “Huzinaga Projection Embedding for Efficient, Accurate Energies of Systems with Complex, Localized Spin-densities” *J. Chem. Phys.* **2022**, 156, 054112
- 3) Graham, D. S.; Wen, X.; Chulhai, D. V.; Goodpaster, J. D. “Robust, Accurate, and Efficient: Quantum Embedding Using the Huzinaga Level-Shift Projection Operator for Complex Systems” *J. Chem. Theory Comput.* **2020**, 16, 4, 2284-2295

- 2) Wen, X.; Graham, D. S.; Chulhai, D. V.; Goodpaster, J. D. "Absolutely Localized Projection-Based Embedding for Excited States" *J. Chem. Theory Comput.* **2020**, 16, 1, 385-398
- 1) Graham, D. S.; Petras, H.R.; Ramadugu, S. K.; Goodpaster, J.D.; Shepherd, J. J. "Fully quantum embedding with density functional theory for full configuration interaction quantum Monte Carlo" *J. Chem Theory Comput.* **2019**, 15, 10, 5332-5342