

WENDI SAPP

WendiSapp.com

EDUCATION

M.A. Mathematics (in progress)

University of Nebraska at Omaha, Omaha, NE

M.S. Chemistry

University of South Dakota, Vermillion, SD

Certificate, Information Technology

University of South Dakota, Vermillion, SD

B.S. Chemistry

University of South Dakota, Vermillion, SD

EMPLOYMENT HISTORY

Certified Tutor, Varsity Tutors

Omaha, Nebraska, July 2017 to present

Athletic Tutor, University of South Dakota

Vermillion, South Dakota, August 2010 to May 2014

Professional Tutor, Independent

Omaha, Nebraska, Vermillion, South Dakota, January 2016 to present

Assisted individual students in learning outcomes in mathematics, physics, and chemistry courses, organized my own schedule, created supplemental course content, and lead group study activities.

Science Instructor, Upward Bound, University of South Dakota

Vermillion, South Dakota, May 2017 to July 2017

Developed and taught a six-week intensive science lecture and laboratory course for high school students in a special program for students from low-income families or families in which neither parent completed college.

Research Assistant, Chemistry Department, University of South Dakota

Vermillion, South Dakota, August 2014 to July 2017

Performed independent research including data generation and analysis. Invited to give presentations at partner universities and national conferences, which requires an ability to convey technical information to a wide variety of audiences. Authored three peer-reviewed journal articles in the computational chemistry and quantum physics research field.

Teaching assistant, Chemistry Department, University of South Dakota

Vermillion, South Dakota, September 2013 to May 2016

Supervised undergraduate students in a teaching laboratory; instructed students in laboratory safety and procedures in a pre-laboratory lecture, prepared chemical reagents and organized equipment.

Certified Ophthalmic Assistant, Pocatello Eye Care, LLC

Pocatello, Idaho, November 2006 to June 2009

Performed keratometry, retinoscopy, refractometry, axial length measurements (IOL Master, immersion and contact methods) Humphrey visual field, ophthalmic photography, contact lens dispensing. Assisted with minor surgical procedures, and patient education. Obtained patient histories. Answered phones and scheduled exams and surgery. Maintained accurate electronic and

handwritten medical records. Maintained patient confidentiality per HIPAA guidelines. Earned certification as an ophthalmic assistant from JCAHPO in August 2007.

Ophthalmic Assistant, Midwest Eye Care, P.C.

Omaha, Nebraska, October 2005 to July 2006

Obtained patient histories. Performed refractometry and assisted with minor surgical procedures. Scribed for the physician during exams. Maintained accurate electronic and hand-written medical charts. Maintained patient confidentiality per HIPAA guidelines. Travelled to outreach clinics with the physician and cooperated with external staff.

Optician, Walmart, Inc.

Omaha, Nebraska, February 2005 to November 2005

Assisted the doctor in exams, filled prescriptions for eyeglasses and contact lenses for patients, maintained inventory, assist customers, provided quality service, and cashiered. Assist patients with selection of frames and lenses, ensured fit and function of glasses, processed payment including insurance. Tracked patient data and orders via shared software with the lab. Billed patients for exams, frames, lenses, other products and services, including forwarding to insurance companies. Maintained patient confidentiality per HIPAA guidelines.

Cashier, Layaway, Front Desk Associate, Walmart, Inc.

Omaha, Nebraska, December 2003 to February 2005

Assisted customers as a cashier, front desk, and layaway associate at Walmart, Inc. Earned consistently high reviews and received "Associate of the Month." Processed customer purchases in an efficient and friendly manner. Handled returns and refunds. Oversaw operations in layaway.

AWARDS

President's Award for Diversity, University of South Dakota, April 2017

Best Posterium Award, SIAM Conference on Computational Science and Engineering (CSE17), Atlanta, GA, February 2017

Travel award, SIAM Conference on Computational Science and Engineering (CSE17) Broader Engagement Program, Atlanta, GA, January 2017

Travel award, Midwest Big Data Summer School; Iowa State University, June 2016

National Science Foundation/SD-IGERT Fellowship, University of South Dakota, August 2015

U.Discover Summer Scholar, Council for Undergraduate Research and Creative Scholarship, University of South Dakota, May 2014

Dell-Intel O'Brien Undergraduate Student Award, Sanibel Symposium, St. Simons Island, GA, February 2014

CURCS Mini-Grant, Council for Undergraduate Research and Creative Scholarship, University of South Dakota, January 2014

OUTREACH & VOLUNTEER EXPERIENCE

Webinar Organizing Committee, Sustainable Horizons Institute

Remote (Ames, Iowa), August 2017 to present

Organizing a webinar series that aims to teach technical skills, improve soft skills, and encourage diversity in STEM fields. Attend meetings held with environment/screen-sharing software. Produce documents and advertising materials MS Office Suite.

REU computational chemistry workshop teacher, Chemistry Department, University of South Dakota

Vermillion, South Dakota, June 2015

Coordinated and delivered the hands-on portion of the two-week-long workshop for undergraduate researchers. Organized student presentation topics and scheduled computer lab time and presentations.

Student Administrator and Trainer, Research Computing Group, IT Department, University of South Dakota

Vermillion, South Dakota, September 2016 to present

Developed and facilitated several workshops intended to teach research computing skills to non-computational researchers at all academic levels from undergraduates to tenured faculty. Develop documentation for users of the high-performance computing cluster. Developed and maintain multiple websites which contain material on subjects ranging from basic programming skills to particle physics applications. Respond to troubleshooting requests from researchers via email.

PROFESSIONAL MEMBERSHIPS

Society for Industrial and Applied Mathematics, Member, February 2017 to present

American Statistical Association, Member, September 2017 to present

SPECIAL SEMINARS AND WORKSHOPS

Responsible Conduct of Research Seminar Series. Completed all seminar sessions on topics as follows: data acquisition, management, sharing, and ownership, mentor/trainee responsibilities, publication practices and responsible authorship, peer review, collaborative science, human subjects, research involving animals, research misconduct, and conflict of interest and commitment. Sept-Nov 2016

Midwest Big Data Summer School. Five days of lectures and hands-on sessions from professionals on topics such as data visualization in R, how big data can be used across multiple disciplines, natural language processing, and ethical concerns in data analytics. Hosted by Iowa State University and the Midwest Big Data Hub. June 2016

PUBLICATIONS

Sapp, W., Gifford, B., Wang, Z., Kilin, D. (2017). Mathematical modeling of gas desorption from a metal-organic supercontainer cavity filled with stored N₂ gas at critical limits. *RSC Advances*, 7 (18), 11180-11190, DOI:10.1039/c6ra21876h.

Erck, A., **Sapp, W.**, Kilina, S., & Kilin, D. (2016). Photo-induced charge transfer at interfaces of carbon nanotube and lead selenide nanowire. *Journal of Physical Chemistry C*, 120(40), 23197-23206, DOI:10.1021/acs.jpcc.6b05571.

Sapp, W., Koodali, R., & Kilin, D. (2016). Charge transfer mechanism in titanium-doped microporous silica for photocatalytic water-splitting applications. *Catalysts*, 6(3), 34, DOI:10.3390/catal6030034.

Sapp, W., Erck, A., Wang, Z., & Kilin, D. (2015). Electronic and spectral properties of a metal-organic super container molecule by single point DFT. *Molecular Physics*, 114(3-4), 394-399, DOI:10.1080/00268976.2015.1076899.

SERVICE TO PROFESSION & INSTITUTIONS

Graduate Student Representative, University of South Dakota Graduate Council, December 2016 to June 2017

Co-Founder, Co-President, and Web Developer, Women in STEM @ USD, ([WiSTEM-USD.github.io](https://github.com/WiSTEM-USD)), August 2016 to June 2017

Coordinator and Judge, Science Olympiad State Tournament, April 2011 to May 2017

Treasurer, Graduate and Professional Student Association, December 2016 to April 2017

Activity Organizer, Pierre Women in Science Conference (hands-on activities for girls 6-12th grades), April 2017

Activity Organizer (Scavenger Hunt) for participants in the Science Olympiad State Tournament, April 2017

Event Judge for Chemical and Biological Sciences, Eastern South Dakota Science and Engineering Fair, March 2017

Undergraduate Student Representative, University of South Dakota Council for Undergraduate Research and Creative Scholarship, October 2012 to May 2013

SELECTED ORAL PRESENTATIONS

"Properties and processes in porous materials," University of South Dakota Chemistry Department Master's Thesis Defense, October 2016

"Electron dynamics: water-splitting application," University of South Dakota Chemistry Department Seminar, February 2016

"Molecular dynamics for photocatalytic and gas storage applications," North Dakota State University Physics Department Seminar, January 2016

“Functionalized silica nanoparticles for dental applications,” University of South Dakota Chemistry Department Research Experience for Undergraduates Symposium, August 2013

“Synthesis and Characterization of Silica Nanoparticles,” University of South Dakota Department Research Experience for Undergraduates Symposium, August 2012

SELECTED POSTER PRESENTATIONS

“Enhancing Dark Matter Detection with Density Functional Theory: Crystal Defects in a Germanium Detector,” SIAM CSE17, Atlanta, GA, March 2017

“Photo-induced excited state dynamics: water-splitting in titanium-doped microporous silica,” 252nd ACS National Meeting & Exposition, Philadelphia, PA, August 2016

“Mathematical modeling of gas desorption from a metal organic super container cavity,” 252nd ACS National Meeting & Exposition, Philadelphia, PA, August 2016

“Charge transfer mechanism in titanium-doped microporous silica for water-splitting applications,” Sanibel Symposium, St. Simons Island, GA, February 2016

“Electronic structure of a metal-organic super container molecule by single point DFT,” PacifiChem, Honolulu, HI, December 2015

“Electronic structure of a metal-organic super container molecule by single point DFT,” Sanibel Symposium, St. Simons Island, GA, February 2015

“Computational binding studies for host-guest interaction of metal-organic super containers,” Sanibel Symposium, St. Simons Island, GA, February 2014

“Computational binding studies for host-guest interaction of metal-organic super containers,” South Dakota Experimental Program to Stimulate Competitive Research (EPSCoR), Pierre, SD, August 2014

“Computational binding studies for host-guest interaction of metal-organic super containers,” IdeaFest, University of South Dakota, Vermillion, SD, April 2014

“Nanoparticles as Materials for Remineralization of Tooth Enamel,” Regional American Chemical Society undergraduate poster competition, Graduate Education and Research (GEAR) Center, Sioux Falls, SD, October 2013

“Nanoparticles as Materials for Decreasing Tooth Hypersensitivity and Preventing Dental Caries by Remineralization of Tooth Enamel,” Department Symposium, University of South Dakota, Vermillion, SD, August 2013

“Synthesis and characterization of functionalized silica nanoparticles,” 47th Midwest Regional Meeting of the American Chemical Society, Omaha, NE, October 2012

“Synthesis and Characterization of Functionalized Silica Nanoparticles,” Department Symposium, University of South Dakota, Vermillion, SD, August 2012

“Synthesis and Characterization of Functionalized Silica Nanoparticles,” It’s All About Science Festival, Sanford Research Center, Sioux Falls, SD, June 2012