

Summary

Team oriented chemist with excellent communication and relationship building skills. Flexible, adaptable, and organized natural problem solver. Excels at promoting, explaining and elaborating on ideas or concepts.

Education

University of Oregon, Eugene, OR Expected June, 2018

- Master of Science in Chemistry with a focus in Semiconductors and Photovoltaics

Bucknell University, Lewisburg, PA May 2017

- Bachelor of Science in Chemistry and minor in French, Cum Laude

Université Francois Rabelais, Tours, France Spring 2016

- Passed the B2 language exam signifying professional proficiency in French

Work Experience

Student Researcher, Strein Research Lab, Bucknell University May 2014 – May 2017

Determination of Creatinine Levels in Patients with Potential Kidney Failure by Capillary Electrophoresis

- Optimized a technique for measuring creatinine in low-volume samples by reacting creatinine with picrate to get an observable product peak, which leads to a decrease in blood sample volume and waste by an order of magnitude
- Improved test-sensitivity to creatinine 10 fold by adapting protocol based on insights obtained through computer simulations
- Seidell, E. *Improving an In-Capillary Assay for Creatinine*. Presented poster at Pittcon - March 11, 2015

Determination of Fentanyl and Cefazolin in Chicken Blood through Ion Mobility Spectrometry for Potential Hospital Use

- Demonstrated proof-of-concept application for hospital use by detecting fentanyl and cefazolin within clinically relevant ranges (~1 nanogram per microliter) in both water and blood, while greatly decreasing sample analysis time and eliminating sample transport between operating room and lab
- Customized vendor-supplied software by modifying detection parameter specifications (i.e. mobility, ion presence time, peak height) for the detection of analytes of interest
- Created an ion mobility signature library for fentanyl and cefazolin by prepping stock solutions of the two compounds, running a series of tests, and analyzing data to establish which peaks were related to the analyte of interest
- Trained two incoming students on procedures and instrumentation for both projects and wrote necessary documents in order to help future group members continue the research

Project Member, Institute for Leadership in Sustainable Technology, Bucknell University May – July 2016

- Provided solar feasibility assessments and presented cost-benefit analysis to three property owners in the Lewisburg community through face to face interactions
- Developed a hypothetical solar energy company from the ground up by identifying an unfulfilled need in the market, strategically choosing the location, providing budgeting and financial plans, researching types of businesses, addressing potential competitors, and marketing to prospective consumers

Ground Control, Insomniac Events May - August 2016

- Practiced customer service by providing emotional, medical, and informational support for attendees
- Increased safety for civilians by helping those needing medical attention, supervising event grounds, and identifying potential hazards

Lifeguard, Lewisboro Town Pool

Summers 2011, 2012, 2013

- Provided a safe environment for patrons to swim by completing CPR and first aid certification each year, being attentive while on duty, keeping facilities clean, and answering questions regarding safety regulations
- Helped children overcome their fear of water or inability to swim by teaching lessons to groups of 2-20 children ranging from the ages of 6 months to 14 years individually or with a partner

Leadership and Activities

Bucknell Student Government: Community Committee Chair

August 2014 – May 2017

- Led a group of 8 students in weekly meetings and followed up with the Dean of Students to discuss outcomes of past events, generate ideas, and plan outreach activities for the committee
- Helped create ties between Bucknell and the surrounding community by directing the annual Lewisburg Easter Egg Hunt for 300 children and families, organizing the sponsorship of free movies at the Campus Theater, and making 20 Thanksgiving baskets each year for families in the Lewisburg community
- Offered a safe environment for children to trick-or-treat by creating, developing, and directing a new Halloween event in which we partnered with the athletics department to provide games, crafts, and snacks to 50 children
- Provided support for all students and community members in response to racist comments made on the school radio station by assisting in the organization of the Bucknell Solidarity Ceremony, attended by over 2,000 students and community members

Bucknell Club Volleyball: Team Captain

August 2015 – May 2017

- Recruited 20 new players each year and built a tight-knit community by planning 5-10 team building and bonding events per semester
- Coached, motivated, and organized the team by developing practice plans, arranging tournament schedules, and handling team funds

Music Committee

August 2015 – May 2017

- Helped organize and plan the annual Bucknell concert attended by over 2,000 students by gauging student interest and musical preferences, choosing attending artists, marketing and promoting events, building and breaking down the stage, and decorating the dressing rooms