

## ANDREW M.T. ZURZUSKI

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4 ½ Old Dodgingtown Road, Redding, CT 06896

### EDUCATION

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#### **Southern Connecticut State University (New Haven, CT)**

Bachelor of Science, Chemistry w/ concentration in Biochemistry

### OBJECTIVE

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Recent college graduate and American Chemical Society (ACS) member with knowledge of chemistry and analytical techniques, driven to work in a professional setting and apply academic and internship chemistry laboratory experience, with the long term goal of pursuing a Ph.D in this field

### SPECIALIZED TRAINING

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- Shimadzu Corporation LCMS training with application specialist Michael Parks – Jan 2015/ Nov 2015
- Perkin Elmer Corporation IR spec training with application specialist Justin Linehem – Oct 2015

### INSTRUMENTAL EXPERIENCE

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- HPLC, LC/MS:** *Shimadzu LCMS-2010EV*  
Over 50 hours of experience running samples and undergoing additional training on an LC/MS instrument, performed general maintenance to get instrument into an operational state, performed repairs including the identification of leaks in vacuum lines, the replacement of plastic fittings for C<sup>14</sup> columns to resolve issues with mobile phases leaking out of columns and the disassembling of the auto sampler to lubricate a jammed worm gear and other components, ran multiple samples of various analgesics to calibrate instrument and test functionality for analyzing samples
- NMR:** *Bruker Digital RF 300 MHz NMR Spectrometer*  
Ran samples of toluene to calibrate instrument prior to being used by graduate students, assisted professor in instruction of how instrument works in undergraduate instrumental chemistry course, ran analysis of multiple borane and transition metal phosphine compounds
- IR Spec.:** *Shimadzu IRAffinity-1 Fourier Transform Infrared Spectrophotometer and Perkin Elmer FT-IR Spectrometer "Spectrum Two" with Diamond ATR Attachment*  
Analyzed multiple aromatic compounds over the course of several experiments in undergraduate organic chemistry courses
- GC/MS:** *Perkin Elmer AutoSystem XL Gas Chromatograph /Turbomass Gold Mass Spectrometer*  
Interpreted mass spectra generated by di-substituted benzene molecules
- AA Spec.:** *Perkin Elmer Atomic Absorption Spectrometer 2100*  
Determined concentrations of metals in aqueous solutions in undergraduate instrumental chemistry course
- UV/Vis.:** *Perkin Elmer UV/Vis Spectrometer Lambda 20 and Lambda 25*  
Used simultaneous equations for determinations of chromium and cobalt in undergraduate instrumental chemistry course

## GENERAL EXPERIENCE

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Assisted in testing analytical lab experiments with faculty prior to their implementation into the course lab curriculum to determine their effectiveness to be successfully completed within a 4 hour time period and by adjusting material quantities to maximize efficiency rate and successful data collection within a limited time frame

Engaged in the execution and troubleshooting of laboratory preparation setup for general chemistry labs by organizing materials and providing appropriate quantities to be used during lab periods, making bulk quantities of required solutions to be used by other students, cleaning and prepping glassware and burets for use by students, performing multiple titrations to give exemplary visual representations of reaction flasks using methyl red indicators and starch indicators exhibiting both ideal and overshoot quantities

Responsible for regularly operating and measuring performance of analytical instruments within instrumental chemistry laboratory

Responsible for monitoring and instructing students in a computer lab within the chemistry department, assisted students with utilizing ChemDraw© computer program to construct molecular structures of compounds through 2D and 3D imaging

Worked with field portable devices such as diffraction grating made from a \$50 simple parts kit, a SeekThermal© thermal camera attachment for smart phones and other simple assembly kits to determine possible low cost experimental implementations for introductory level chemistry lab sections

Responsible for leading tour groups of financial benefactors of Southern Connecticut State University, students and non-chemistry faculty through the chemistry department to display the NMR instrument room, analytical chemistry laboratory and instrumental chemistry labs and explain the function of multiple instruments and their pertinent applications

## EMPLOYMENT EXPERIENCE

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May 2009 – Present

**Head Trapper: Weston Gun Club**

Designed clay target courses for shotgun games such as sporting clays, five-stand, FITASC, performed regular maintenance checks on designated trap and skeet fields, responsible for supervising up to 3 additional trappers working in the field, maintained and repaired traps for throwing targets, monitored member activity and was responsible for upholding safety guidelines for all shooters on the property, performed cleaning and maintenance on members firearms

Oct 2008 – Aug 2012

**Line Chef: Redding Country Club**

Worked in a team of four chefs to provide lunch/dinner service for country club members, worked on extensive kitchen prep for services/events with 200+ attendees