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## OBJECTIVE

An undergraduate research program applying analytical chemistry to dynamic, interdependent environmental systems to support remediation of natural habitats and reduce negative anthropogenic impacts.

## KEY ATTRIBUTES

- Highly meticulous and precise nature in laboratory
- Experience in leadership and project accountability
- Dedicated member of diverse, high-impact teams
- Drive to analyze and interpret experimental data
- Detail-oriented, inquisitive personality

## RESEARCH AND ANALYSIS EXPERIENCE

Austin Peay State University Undergraduate Research 08/2017—Present

- Applied flame atomic absorption spectroscopy to study reaction kinetics of heavy metal ions
- Leader of kinetics-sub team of multidisciplinary group studying biomedical applications of gold nanoparticles

Undergraduate Course: Organic Spectroscopy Spring 2019

- Applied GCMS, NMR, and FTIR toward determination of structure and identity of unknown organic compounds
- Purified samples via standard and vacuum distillation

Undergraduate Course: Quantitative Analysis Fall 2017

- Studied significant and trace components of artificial aquatic system (fish tank)

- Used gravimetric and other methods to quantitate dissolved oxygen, nitrates, phosphates, sulfates, and alkaline constituents of water
- Determined viability of analytical methods from LOD and LOQ

Tennessee State University Summer Research

Summer 2019

- Developed novel synthesis of piezoelectric poly-vinylidenedifluoride membranes via low-voltage electrospray onto polar substrate
- Utilized Raman spectroscopy to investigate crystal structure of membrane product

## EDUCATION

Austin Peay State University, Undergraduate

08/28/2017—Present

- Dual Major, Chemistry and Geology
- Mathematics and Physics Minors
- Graduation Date: May 3, 2021
- Current Grade Point Average: 3.53

Austin Peay State University, Dual Enrollment

08/28/2015—05/05/2017

- Graduation Date: May 5, 2017
- Final Grade Point Average: 3.7777

HomeLife Academy

08/2012—05/2017

- Graduation Date: May 5, 2017
- Final Grade Point Average: 3.977

## WORK EXPERIENCE

Austin Peay State University Student Work

08/2017—Present

- Biochemistry Assistant Lab Manager
- Prepared Biochemistry laboratory for student lab experiments
- Prepared solutions and reagents; calibrated instruments as necessary
- Experienced with standard methods of protein analysis including SDS-PAGE and UV-Vis spectrophotometry
- Practical knowledge of chemical safety and environmental regulations for proper waste management

Andrew's Pet Service 12/2011—Present

- Pet-sitter, house watcher
- 17 Client families, 12 regular
- Peerless reputation among clients

Tina's Bakery & Catering 2013—2015

- Temporary food server & kitchen worker
- Competitive small business

#### AWARDS AND HONORS

National Society for Leadership and Success membership 08/27/2019—Present

- Limited-membership leadership training organization

Phi Kappa Phi membership 04/10/2019—Present

- Academic honor society open to STEM majors

Sigma Pi Sigma membership 04/18/2019—Present

- Physics honor society

Austin Peay State University Presidential Scholarship 08/2017—Present

- Competitive GPA and ACT score-based award

Austin Peay State University Dean's List 08/2017—Present

- GPA 3.5 or greater

National Beta Club membership certification 09/29/2014

- Local chapter formed as one of first homeschool chapters

Mayor's Certificate for community excellence 01/03/2013

- In participation in Clarksville's M.A.R.I.O. Robotics club (BEST Robotics competition)
- Served as engineering notebook writer, marketing presenter, and website designer for M.A.R.I.O. Robotics

Healthcare Provider CPR/AED certification 12/2014

- Received through training according to American Heart Association standards

#### VOLUNTEERING

Chi Epsilon Mu & Del Squared Psi 2015—Present

- Scientific outreach in community
- Assisting with events including 2017 total solar eclipse
- Involved in High-Altitude Balloon Project

Manna Café 2019—Present

- Community service- helping package food donations

American Red Cross 02/29/2016

- Blood drive- organization and assistance

National Beta Club 09/2014 to 05/2015

- Community service- Salvation Army, Manna Café
- Maintaining group records, fundraising

Boy Scouts of America 05/2010—03/2015

- Multiple community service projects
- Leadership experience; planning outings and leading Scout Troop

C.H.A.R.A. (homeschool service organization) 08/2010—05/2014

- Community service- food drives and clothing collections, serving local homeless

#### AFFILIATIONS

Association of Environmental and Engineering Geologists 10/21/2019—Present

American Chemical Society 09/2017—Present

APSU CoSTEM Student Advisory Board 01/2020—Present

APSU Chi Epsilon Mu Chemistry Club 2016—Present

The National Society of Leadership and Success 8/27/2019—Present

Phi Kappa Phi 04/10/2019—Present

APSU Del Squared Psi Physics Club 09/2019—Present

Sigma Pi Sigma 04/18/2019—Present