

# Zachary T. Weintraut

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## Professional Summary

2+ years project management                      3+ years leadership experience                      3+ years in public relations  
5+ years service/sales experience                      2+ years in research & development

## EDUCATION

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**Rowan University**  
*College of Engineering*  
Glassboro, NJ

**B.S. Chemical Engineering, Materials Science Specialization**  
GPA: 3.8; Graduating May 2019

*Honors/Awards:* NSF I-Corps Grant Awardee;  
Rowan Foundation Scholar;  
Bantivoglio Honor's College; Dean's List

**Camden County College**  
Blackwood, NJ

**A.S. Chemistry & A.S. Mathematics**  
GPA: 3.9; May 2017

*Honors/Awards:* Mu Alpha Theta Mathematics Honor Society;  
Phi Theta Kappa Honor Society;  
Mathematics & Chemistry Teaching Assistant;  
Society of Chemical Industry Scholar;  
NASA Aerospace Engineering Scholar;  
Elmo Foundation Scholar: President's List

## INDUSTRIAL EXPERIENCE

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**Research and  
Development  
Intern**

*American Water*, Cherry Hill, NJ, Sept. 2018 – Present

- Modeled hazardous chemical effects on variables for individual unit processes
- Programmed python code to mine and transform the format of big data from public governmental databases for query into company database
- Leading the preparation and processing of data collected from process sensors for the development of new sensor operation and maintenance systems

**Operations Intern**

*American Water*, Mt. Laurel, NJ, August 2017 – May 2018

- Developed automated workflows for contract, cost-savings, employee fringe benefits, and onboarding intranet services
- Mapped and merged data from a network drive to multiple SharePoint sites
- Collected and presented supplier feedback for improvement to leadership

**Engineering Intern**

*Carus Chemical Company*, LaSalle, IL, June 2016 – August 2016

- Developed process flow diagrams (PFDs) across both facility plants
- Led project to improve plant-wide preventative maintenance procedures to meet requirements for a new Title V EPA hazardous air emissions permit
- Coordinated a \$300,000 capital expense project to demolish, design, and install a new material packaging system to double onsite storage capacity

**Laboratory  
Assistant**

*Prestige Enviromicrobiology Inc.*, Voorhees, NJ, May 2015 – August 2015

- Maintained records for quality control of biological and chemical processes
- Prepared MEA, CMA, and DG18 culture mediums
- Plated culturable fungal samples onto MEA, CMA, and DG18 media
- Acid treated and plated bacteria samples for the presence of known risks

## **LEADERSHIP EXPERIENCE**

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- Project Lead** *Engineers Without Borders, Glassboro, NJ, January 2018 – Present*
- Leading assessment for an international engineering initiative in Maharashtra, India
  - Providing alternative analysis report on ways to improve existing water infrastructure
  - Built a 500-gallon rain water catch system for a community garden in Camden, NJ
- Lead i-STEAM Tank Judge** *US Army & NJ School Board Association, Atlantic City, NJ, October 2016 – Present*
- Coordinated judging of students from K-12 in a Shark Tank themed competition where innovative ideas are presented and critiqued for their promise of success
- Project Manager** *NASA Community College Aerospace Scholars, Langley Research Center, VA, May 2016*
- Won 1<sup>st</sup> Place design in NASA's Mars rover competition
  - Assigned roles and responsibilities to 10 other students, ages ranging from 19 – 52
  - Directed improvements, budgeting, and media marketing campaigns within team

## **RESEARCH EXPERIENCE**

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- Electrochemical Oxidation of a Model Wastewater Contaminant** *University of Arkansas, Fayetteville, AR, May 2018 – Present*
- Patent-pending
  - Developed proof-of-concept for the use of nanostructured boron doped diamond in a three-electrode electrochemical cell to treat persistent water pollutants
  - Identified optimal treatment operating conditions
  - Assessed kinetic regime changes during the experimental reaction
- Liquid Nanostructured Fibers** *Rowan University, Glassboro, NJ, September 2017 – December 2017*
- Performed fiber extrusions in a hydrodynamic environment
  - Programmed a centrifugal pump using LEGO NXT system
  - Synthesized liquid fibers confirmed by confocal microscopy analysis

## **ADDITIONAL EXPERIENCE**

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- Public Relations Assistant** *Camden County Community College, Blackwood, NJ, March 2017 – June 2017*
- Formed partnership with the US Army improving services for veteran students
  - Scripted, filmed, and produced audio-visual advertisements to expand outreach
  - Wrote daily press releases for events on campus and distributed to media
- Server** *Iron Hill Brewery and Restaurant, Voorhees, NJ, April 2015 – May 2016*
- Maintained a high standard for customer needs under time constraints
  - Fostered meaningful relationships with customers and returning business
  - Organized several fundraising events for local non-profits

### **HARD SKILLS**

Agile Methodology  
Compliance  
Electrochemical Analysis  
Fiber Extrusion  
IR Light Polymerization  
Light & Confocal Microscopy  
Process Development  
Project Management  
Quality Assurance/Control  
Quantitative Analysis  
UV/Vis Spectrophotometry  
Water Quality Analysis  
Workflow Automation

### **SOFTWARE**

Adobe Multimedia Software  
ASPEN  
AutoCAD  
COMSOL  
MATLAB  
Microsoft Excel  
Microsoft Sharepoint

### **SOFT SKILLS**

Emotional Intelligence  
Leadership  
Public Speaking  
Salesmanship  
Teamwork

### **COMPUTER LANGUAGES**

C++  
CSS  
HTML  
LATEX  
MATLAB  
PYTHON  
SQL  
XML

*\*References can be made available upon request.*