

## EDUCATION

### UNC CHARLOTTE

BS IN MECHANICAL ENGINEERING  
BA IN MUSIC

May 2020 | Charlotte, NC

Levine Scholar  
(UNC Charlotte's Premier  
Merit Scholarship)

Summa Cum Laude  
GPA: 3.9 / 4.0

### NATIONAL OUTDOOR LEADERSHIP SCHOOL

23-DAY BACKPACKING TRIP TO  
DEVELOP LEADERSHIP SKILLS.

Grad. July 2016 | Lander, WY

Learned:

- Stages of Group Development
- Wilderness Survival Skills
- Leadership Styles
- Active Following and Leadership

## LINKS

LinkedIn: [alex-caviness](#)

Website: [webpages.uncc.edu/acaviness/](http://webpages.uncc.edu/acaviness/)

## SKILLS

Machining: CNC • Mill • Lathe  
Solid Modeling: CREO • SolidWorks  
Business Intelligence: Tableau  
Programming: HTML • Java • Python •  
Matlab • LabVIEW  
Circuit Design: Multisim  
PCB Design: ExpressPCB • KiCad  
Wilderness First Aid and CPR Certified

## ENGINEERING EXPERIENCE

### LAWRENCE LIVERMORE NATIONAL LABORATORY

PRECISION ENGINEER

Sep 2020 – Present | Livermore, CA

- Using two translation stages and designing connectors and supports, automated the extrusion process of a carbon-absorbing filament to construct mats of material.
- Built a web interface and a touchscreen interface for a project automating the process of designing an object for manufacture.

### UNC CHARLOTTE CENTER FOR PRECISION METROLOGY

RESEARCH ASSISTANT

May 2018 – Aug 2019 | Charlotte, NC

Worked with Kumar Arumagam and Dr. Stuart Smith

- Experimented with methods to decrease the size and cost of laser interferometers by using piezoelectric plates to compress and expand a crystal in front of the laser.

### MECHATRONICS PROJECT | ELECTRICAL TEAM LEAD

August 2018 – December 2018 | Charlotte, NC

- Led the electrical team for a project to improve and rebuild a pre-existing driving robot by building amplifier circuits, selecting new motors, and optimizing programs.

## OTHER EXPERIENCE

### C.O.R.E. CIVIC ENGAGEMENT PROJECT | HEAD OF MARKETING

Oct 2016 – Sep 2019 | Charlotte, NC

- Collaborated on project proposal to install the Calisthenic Outdoor Recreation Equipment (C.O.R.E.) on campus.
- Led the project after other partners graduated and oversaw the successful installation and opening of the project.

### CHARLOTTE SYMPHONY ORCHESTRA | OPERATIONS INTERN

Jul 2017 – Aug 2017 | Charlotte, NC

## ACTIVITIES

### SEX WEEK UNC CHARLOTTE | PRESIDENT

Sep 2017 – May 2020 | Charlotte, NC

- Co-founded student organization aimed at promoting sex positivity and safe sexual behaviors.
- Created "Sex Week" at UNC Charlotte, a week-long schedule of twenty-one lectures and events by sixteen partnering professors and organizations on diverse topics of sex and sexuality.

### UNC CHARLOTTE CHAMBER ORCHESTRA

Sept 2016 – May 2020 | Charlotte, NC

### UNC CHARLOTTE UNDERGRADUATE RESEARCH CONFERENCE

Feb 2017 – April 2017 | Charlotte, NC

- Organized logistics for the day of the event and coordinated a group of people for setting up, running, and tearing down the event.