# Trevor Schachner

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# **Education**

# University of South Carolina, Columbia, SC

M.S., Technology Innovation & Entrepreneurial Engineering • GPA: 3.9/4.0

B.S.E., Mechanical Engineering • Minor, Music • GPA: 3.6/4.0

Dec 2019

May 2019

# **Professional Experience**

#### AMPED Association Management, Association Coordinator, Alexandria, VA

Jan 2020 - Present

- Managed membership, databases, website updates, and back-end systems for two non-profit associations
- Automated renewals, registration, data reporting, scholarship applications by implementing new systems for each
- Expanded strategy for increasing membership retention and improving user experience, growing membership by 10%

## McNair Research Center, Graduate Research Assistant, Columbia, SC

May 2019 - Dec 2019

- Project-based research on automated fiber placement (AFP) design and manufacturing for aerospace applications
- Created CAD models of AFP defects, 3D printed designs, and revised catalogs of layup process defects
- Constructed 3D models for use in educational outreach at UofSC and the manufacturing community

### Zapp RideShare, Inc., Mechanical Engineering Intern, Columbia, SC

Aug 2018 – May 2019

- · Designed structure and internal components for a solar-powered charging station for on-campus e-scooters
- Lead CAD designer for project, performed finite element analysis and testing for final product
- Collaborated with electrical engineering team and solar tech company to design internal electrical components

### Stäubli Corp., Engineering Intern, Duncan, SC

Jan 2014 – May 2014

- Crafted prototype components for robotic tool changer and 3-piece-assembly for product demos and conventions
- Assisted designers and engineers with projects focused on robotic applications in manufacturing and transportation
- Developed tooling kit for on-site repairs and installations using recommendations from field technicians

#### **Projects**

## AFP Educational Prototyping, McNair Research Center

- Researched prior failures of AFP printing process to develop models and defect representations for educational purposes
- Fabricated modular bases and defects to increase adaptability of this project for future applications
- Published "3D Modeling and Printing of Automated Fiber Placement Defects" in the 2020 Composites and Advanced Materials Expo (CAMX) Proceedings

#### Design Thinking Sprint, Darla Moore School of Business, Sonoco Products Company

- Participated in a ten-day design sprint with Sonoco, a global packaging company, to sustainably re-design products
- Identified a new packaging design through the human-centered design thinking process emphasizing user experience
- Collaborated with team members of varying engineering and business backgrounds to complete the project

#### Naptime, UofSC College of Engineering and Computing

- Created lean-startup business plan for new on-campus coffee shop with "napping" areas for students
- Drafted differentiation strategy, profit-loss estimates, and a risk-management plan for the business
- Pitched presentation and business plan to angel investors for seed funding at UofSC

## **Additional Experience**

#### Marching Arts Designer, Self-Employed

Jan 2018 – Present

- Write music and movement for seven high school performing ensembles in the Southeast
- Work directly with clients through the design, creation, and execution of each project

#### Legends Drum & Bugle Corps, Visual Instructor

Nov 2018 - Present

- Educate high school and college-age students on various marching and movement concepts
- Plan and implement curriculum for each rehearsal and assess students on their individual achievement

### Carolina Crown Drum & Bugle Corps, Member & Leader

Nov 2014 – Aug 2018

- Competed in a top-ranked professional performing ensemble each summer throughout college, touring the country
- Led a group of 16 individuals through a challenging year for the organization while maintaining a high level of excellence