# Samuel Nathan Ray-Alverson

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**Objective**: Acquire an engineering internship or co-op position for Summer 2022 that introduces me to engineering as a career and allows me to apply my technical knowledge.

#### **Education**:

## **B.S. Mechanical Engineering**

Computer Programming Minor

North Carolina State University, Raleigh, NC

GPA: 3.59

## **Relevant Courses**:

Statics, Dynamics, Thermodynamics I & II, Solid Mechanics, MATLAB, Discrete Mathematics, Software Development Fundamentals (Intermediate Java), C and Software Tools, Principles of Electrical Engineering.

## **Skills**:

- Software: Solidworks, Fusion 360, MATLAB, Java, C, Arduino, Familiar with test-driven development.
- Machines: 3D Printing, Soldering, X-Carve CNC, Mill, Drill Press, Band Saw, Table Saw, Miter Saw.

#### **Employment**:

**Instructor**, Zaniac Learning Center, Asheville NC

June 2017 - August 2017

Anticipated Graduation: December 2023

- Worked part-time (about 20-30 hours per week) as a teacher at Zaniac, a STEM-based summer program for students in grades K-8.
- Taught week-long classes for up to eight students, on various topics such as robotics, chess, and the science of Harry Potter. Wrote daily emails to parents explaining what their child learned.

**Soccer Referee**, Henderson County Parks and Recreation:

January 2015 - May 2017

- Certified soccer referee, worked 6 hours a week, 20 weeks per year.
- Refereed games for youth ages 5-16 at the recreation, academy, challenge, and classic levels.
- Multitasked by keeping the coaches and parents under control while also managing the game.

#### **Relevant Projects**:

## **Custom Lamp Project**

January 2021

• Designed and 3D printed an Arduino-controlled, Google Home activated, LED lamp.

#### **Leadership and Organizations:**

Vice President of Operations, FIRST Alumni Association at NC State

August 2019 - Present

- Served on the Robot in 3 Days Planning Committee as the Schedule and Team Strategy Officer.
- Designed a competition-ready robot from scratch, documented progress on the club's website and YouTube channel, and created instructional content for *FIRST* Robotics Teams.
- Presented and explained the team's progress as Live-Stream Host for 2021 Robot in 3 Days event.

## STEM Coach, Goodnight Scholars Program

August 2020 - Present

- Visit elementary schools and after-school programs to teach STEM lessons to students.
- Create instructional videos to get elementary school students excited about STEM.
- Work with a team to create videos and make the videos inspirational.

Member, Research and Development Club

January 2021 - August 2021

- Utilize the generative design process to custom build a CNC mill based.
- Research parts and contact vendors to discuss specs of parts we may want to use on our machine.

Teammate, Intramural Soccer

August 2019- Present

• Compete in weekly matches against other NCSU students.

Member, Pickleball Club at NCSU

August 2021 - Present

• Play Pickleball 1-2 times per week with other members of the club.

## **Honors and Achievements:**

- Goodnight Scholars Class of 2023: Full scholarship for students from North Carolina studying STEM. The program helps students with their personal, professional and academic development.
- **Dean's List:** Fall Semester 2019, Fall Semester 2020