

# Preston Young

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## Education

- University of Tennessee, Knoxville, Junior in Mechanical Engineering, Chancellor's Honors Program, Fall 2018-Present, GPA: 3.95. Will complete Bachelor's Degree Spring 2022.
- Awarded UTK "MABE's Outstanding Junior in Mechanical Engineering Award" April, 2020.
- Hardin Valley Academy, Knoxville, Tennessee, High School Diploma, May 2018. GPA: 4.35/4.0. Received college credit for ten AP classes.

## Work Experience

University of Tennessee, Knoxville

- Summer 2019-Present: Undergraduate Research with the MABE Welding Group under Dr. William R. Hamel. Developed code to visualize laser scans from a Keyence scanner in Labview, maintenance and part fabrication for a Liburdi P300.

Oak Ridge National Laboratory, Main Campus, Oak Ridge, TN

- July-September 2019: Spallation Neutron Source: Spectroscopy Group. Worked in the Quantum Sensing Lab running experiments, using visible laser light to test an experimental method for compressive imaging.

## FIRST Robotics Participation

- Participated in Hardin Valley Academy's FIRST Robotics team for four years. Design Team Captain Sophomore year. Build Team Captain and Robot Driver Junior and Senior years.
- Worked out of Oak Ridge National Labs' Manufacturing Demonstrations Facility, using their large-scale additive manufacturing printers and machine shop.
- Designed and printed the control station, led the building of the robot, led pit crew, and drove the robot in 6 competitions and over 70 matches.

## **Skills**

- Computer Aided Design: SolidWorks, Inventor, Onshape.
- Familiar with programming languages: Matlab, Labview, Robot C, Arduino.
- Hand tools, power tools, wood working, metal working, forging, soldering and robot wiring.
- Remote control of robotics through line of sight, on-board cameras, and first-person view.

## **International Experiences**

- Mongu, Zambia, May 2019. Three-week mission trip to the Western Province of Zambia through the Zambia Project where we installed a water well in Ngundi, a village with no access to clean water.
- Göttingen, Germany, June 2016. Participated in an exchange with IGS Göttingen, lived with our partner for a month, attended school, visited science and technical museums, and established a FIRST Tech Challenge team while learning about and being integrated with the culture.

## **Hobbies**

- Built a forge from scratch and enjoy using it to create custom tools.
- Built and fly a cinematic first-person view racing drone.
- Designed and built a robotic arm using 3D printed parts, stepper motors, servos, and Arduino controller to be used for cinematography.
- Ultimate Frisbee: Competed on the Hardin Valley Highschool Ultimate Frisbee team, Knoxville Summer League, and University of Tennessee.
- Leather work
- Rock climbing
- Frisbee golf
- Competitive firearms shooting