

Ben Baker

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EDUCATION

The University of Tennessee, Knoxville, TN

Aug. 2022-Present

Bachelor of Science in Aerospace Engineering

South Oldham High School, Crestwood, KY

Mar. 2022

COLLEGE EXPERIENCE

Boat Dimension Optimization MATLAB Script

Mar. 2023-Apr. 2023

Self-Started Additional Project –

- Although not required by my engineering course (Honors Physics for Engineers), I made a MATLAB script to help my team find the optimal dimensions for a foam boat project, and continued iterating on it after the project's completion
- I went through several iterations of the script, shortening the runtime by 7.5x over the course of the week

Portable Electronic Toy Project

Feb. 2023-Mar. 2023

Team Member –

- Was tasked with the engineering of the toy's wiring, Arduino housing, lights, and sensors, and the Arduino C++ programming of the toy's sensor functions
- Designed optimized housing for the circuitry, reducing empty space within to less than 40%

ACTIVITIES

South Oldham High School Marching Band

Jun. 2019-May 2020

Pit Leader –

- Led the band's group of ten non-moving percussion during practices and performances
- Participated in section-leader meetings after practices and competitions

Engineers of Tomorrow (FIRST Robotics Competition [FRC] Team 2783)

Jun. 2020-Apr. 2022

Systems Lead –

- Led the sub-team tasked with the programming and wiring of our FRC robot
- Planned weekly systems training sessions for a year, teaching the necessary Java coding information and reference libraries
- Led our programming efforts (including autonomous navigation), writing most of the several thousand lines of Java code

Student Space Technology Association

Jan. 2024-Present

Club Member

COMPUTER SKILLS

Working knowledge of engineering software: Java, C++, AutoCAD, AutoDesk Inventor, MATLAB, Arduino IDE

Working knowledge of logistical software: Slack, GitHub, Microsoft Excel, PowerPoint, Word, Google Sheets, Docs

ADDITIONAL INFORMATION

Chancellor's Honors

Aug. 2022-Present

UT Volunteer Scholarship Recipient

Aug. 2022-Present

Tennessee Scholars Recipient

Aug. 2022-Present

John L Chafin Scholarship

Aug. 2022-Present