Joseph Telaak

https://linkedin.com/in/jtelaak/

Email : jtelaak@sc.edu

Mobile : 704-351-7396

EDUCATION

University of South Carolina — Columbia, SC
BSE in Computer Engineering, Minor in Math: GPA: 4.00 — *Aug. 2022 – May 2024 (Exp)*

South Carolina Governor's School for Science and Mathematics — Hartsville, SC
High School Diploma, Concentration in CS and Math; GPA: 3.8 — *Aug. 2020 - May 2022*

EXPERIENCE

South Carolina Governor's School for Science and Mathematics — Hartsville, SC
Instructor — *Jan. 2023*

- **Engineering Interim**: I helped students design and build various projects across a variety of disciplines.
- **Engineering Projects Course**: Helped design the course for permanent placement within the course catalog.

SCGSSM Autonomous Golf Cart Research — Hartsville, SC
Founder and Team Lead — *Jan. 2022 - Feb. 2023*

- **Project Managment**: Managed funding (Over $50k), part procurement, and technical design.
- **PCB Design**: Designed custom printed circuit boards to create a retrofit drive-by-wire control system for multiple models of golf carts.
- **Algorithmic Design**: Wrote software to help the vehicle to avoid collisions, navigate autonomously, and offer teleoperated control.

USC Cyberinfrastructure Lab — Columbia, SC
Research Assistant — *Summer 2021*

- **Network Testing**: Created scripts to automate throughput and packet loss measurements.
- **P4**: Developed applications for P4 programmable data-plane switches.

VOLUNTEERING

SC FIRST Robotics — Columbia, SC
Various Volunteer Roles — *Jan. 2022 - Present*

- **Field Technical Assistant**: Helped run and manage field operations. Assisted students with robot programming and troubleshooting.
- **Robot Inspector**: Inspected each team's robot to ensure a safe and fair competition.
- **Various Roles**: Various other roles like pit administration and field reset.

SCGSSM SPARK! — Hartsville, SC
SPARK! Leader and Instructor — *Aug. 2020 - May 2022*

- **Python Bootcamp**: Led and taught an 8-week Python course to SC middle and high school students.
- **CS and Robotics**: Taught various courses in CS and robotics to SC middle and high school students.

PROJECTS

- **Self-Driving Golf Cart**: Retrofit golf cart with a drive-by-wire system to create an Advanced Driver Assistance System (ADAS) with autonomous capabilities.
- **Open-Source Rocket Flight Computer**: "Hackable" rocket flight computer to enable users to learn flight control and embedded systems.

PROGRAMMING SKILLS

- **Languages**: C/C++, Python, Java, P4, SQL, MIPS, x86, VHDL

- **Technologies**: ROS, Quartus, FPGA, STM32, MATLAB, Altium