Work Experience

MySTEMBuddy, Naperville, IL — Board Director: Teacher, Coach, Mentor, Judge | Date: December 2019 - Current
- Taught up to 15 students in STEM-oriented classes to teach advanced programming, robotics, and electricity/magnetism.
- Mentored 10+ robotics teams and led them to Excellence at World Championships
- Presented to 100+ people on robotics and STEM education.

NanoBeasts STEM+ Robotics, Naperville, IL — Teacher, Assistant Teacher | Date: 2017 - 2020
- Taught various STEM-related courses (teaching students Scratch, Python, Micro:Bit Makecode, SonicPi, Arduino, and more) on weekly Zoom meetings with up to 8 kids. Taught up to 5 classes a week.

Volunteer Experience

NanoBeasts STEM+ Robotics, Naperville, IL — Teacher, Assistant Teacher | Date: 2017 - 2020. **500+ hours**
- Worked alongside other NanoBeasts employees to help teach classes as well as help with STEM events and outreaches.
- Taught/helped teach up to 11 students in STEM-oriented classes that taught programming, robots, etc.
- Worked closely with the teacher to guide children and help them understand the fundamentals of the class while maintaining a focused yet fun learning environment.
- Produced and managed a Youtube channel with over 600k viewers. (**stemguru4u** on YouTube)

First, Naperville, IL — Robot Design Judge | Date: Feb 2020
- Voluntering and Judging for the Robot Design portion of a First Lego League competition hosted by NanoBeastsSTEM+ Robotics.

MySTEMBuddy, Naperville, IL — Outreach Head | Date: Q2 2021-Present. **1000+ hours**

Relevant Extracurricular Activities (2018-2022)

NanoBeasts STEM+ Robotics, Naperville, IL — Volunteer, Participant, Teacher, Assistant Teacher | Date: 2018 - 2020
MySTEMBuddy, Naperville, IL — Member of Board of Directors, Volunteer, Participant, Teacher, Assistant Teacher| Date: 2019 - Current
Neuqua Valley High School Robotics Club, Naperville, IL — Club Captain, Lead Programmer, and Designer| Date: 2018 - Current
Neuqua Valley High School/Scullen Middle School Science Olympiad, Naperville, IL — Team Member | Date: 2018 - Current
Illinois Junior Academy of Science, Science Fair, Naperville, IL — Regional and State Participant | Date: 2018 - 2021
MySTEMBuddy VEX AI, Naperville IL — World Championship Participant | Date: 2021-Current
Singularity FTC, MySTEMBuddy — Lead Mechanical and Driver | Date: 2021-Current

Licenses and Certifications

Google Professional I.T. Certification — Issued By: Google | Date Issued: July 2020
FAA UAV Pilot License — Issued By: Federal Aviation Administration, Issued 3/17/2019

Publications:

Design and Development of AI Augmented Robot for Surveillance of High Radiation Facilities
Authors: K.J. Suthar, M. White, G.K. Mistri, A.K. Suthar, S.K. Suthar
Abstract: Scientific instruments and utility equipment during the operation of high radiation facilities such as the Advanced Photon Source at the **Argonne National Laboratory** express a challenge to monitor. To solve this, we are developing a self-guided artificially intelligent robot that can allow us to take images to create a thermal and spatial 3D map of its surroundings while being self-driven or controlled remotely. This inexpensive robot is operated by an Nvidia Jetson NanoTM.

Technical Skills (Proficiency)

Programming Languages: Python, C++, Java, JavaScript, C, LaTeX, CLIP, Regex, SQL (Markup: HTML, CSS)
Operating Systems: Linux (Arch, Ubuntu, Debian), macOS, Windows
Applications: Visual Studio, AWS, Anaconda, Inventor, Fusion 360, Blender, Photoshop, Premiere Pro, Final Cut Pro, FL Studio, Logic Pro X, After Effects, node.js, reactjs, Bootstrap, GitHub, XCode.
Other Skills: Arduino, Raspberry Pi, IoT, oscilloscope use, PC building/overclocking, soldering, 3D printing, audio equipment, FGPGAs.

Languages

English, Spanish, Gujarati, Music Theory

Relevant Coursework

AP Computer Science A, AP Computer Science P, AP U.S. Government, AP Comparative Politics, AP Calculus AB, AP World History, AP Human Geography
In progress: AP Physics Electricity and Magnetism, AP Physics Mechanics, AP Macroeconomics

Notable Awards

Apollo 50 NASA State Champion (Top point score nationally) — Issued By: NASA | Date Issued: 2018
IIT Regional Bridgebuilding competition 2nd place — Issued By: Illinois Institute of Technology | Date Issued: 2022
VEX AI World Championship 8th place + Innovate Award — Issued By: REC Foundation | Date Issued: Robotics Season 2020-2021
Singularity FTC Meet Champions & State Connect + Inspire Award— Issued By: FIRST | Date Issued: 2021
Science Olympiad 1st place (Multiple events) — Issued By: Science Olympiad | Date Issued: 2018 - Current
Neuqua Valley Bridgebuilding School Record — Issued By: Neuqua Valley | Date Issued: 2022
VEX EDR Top 20 State Skills ranking — Issued By: REC Foundation | Date Issued: Robotics Season 2021-2022
AP Scholar Award with Distinction — Issued By: CollegeBoard | Date Issued: July 2022
Volunteer of the Year — Issued By: REC Foundation | Date Issued: 2022
VEX IQ Robotics Excellence and Judges Award — Issued By: REC Foundation | Date Issued: Robotics Season 2020-2021
Best In Materials Science Award — Issued By: Illinois Junior Academy of Science | Date Issued: 2017-2018
DVC Wrestling Conference 4th place — Issued By: NVHS | Date Issued: 2019
ISAC State Scholar — Issued By: ISAC | Date Issued: 2022