

Ari Stehney

Technical Interest: Robotics, Microelectronics

(571) 420-7045 (cell)
aristehney@gmail.com

43588 Wild Ginger Terrace
Leesburg VA, 20176

EDUCATION

Ideaventions Academy

12340 Pincrest Rd, Reston VA (703-860-0211)

AUGUST 2021 - Present (Junior year)

AP Calculus BC, Cogworks Post-AP Machine Learning and Data Science, AP Chemistry, AP Physics A, AP Computer Science A, Matlab

GPA: 4.279 / 4.000 (weighted)

SAT: 1580/1600 (800 math, 780 language)

PSAT: 1490/1520

Potential Major: Computer/Electrical Engineering

PROJECTS

Bell Advanced Vertical Robotics — 2022, 2023, 2024 Drone Pilot and Hardware Lead

Managed hardware assembly and flight controller software for the main competition drone as part of team Daedalus Robotics. Piloted the main drone during all competitions to optimize point gain and efficiency. Designed custom PCB for DJI Tello with ESP32 MCU utilizing ESPnow for remote payload dropping.

<https://github.com/Daedalus-Robotics> (technical info)

Team won Best Presentation at Qualifiers and World Championships as well as 1st place at both, setting a season record by 271 points.

<https://daedalusavr.weebly.com/about-us.html>

EdgeTX Project — 2021-2023 Open Source Developer Lead

Founding developer for Open Source Radio Controller firmware project called EdgeTX, developed flasher project and scripts for continuous integration and delivery.

More at:

<https://github.com/CoderElectronics>

SKILLS

- Fusion 360 2D/3D CAD and FDM printing
- Carbon fiber airframe design for drones
- PCB Design in KiCad
- Linux/Embedded Systems Development with Arduino and Raspberry Pi
- Bare Metal Hard/Software Development
- Part 107 Certified Remote Unmanned Aerial Vehicle Pilot

LANGUAGES / OPERATING SYSTEMS

Python 3 - PyQt, Eel, Pandas, Numpy, Matplotlib, Flask, TensorFlow

Node.js/Web - express.js, Electron, Vue.js, DaisyUI, TailwindCSS, Alpine.js

C, C++ - Bare-metal programming (platformio), ImGui, Eigen, Cmake

AWARDS

2024 William and Mary Leadership Award for work as part of AVR and DEXI projects

2024 Xerox Award for Innovation and Technology

2022-2023 Leadership & Excellence, Collaboration & Teamwork at Ideaventions Academy for work with robotics, varsity volleyball team captain, and social committee

2023 Bell Advanced Vertical Robotics World Champion, Best Overall Design with Daedalus Robotics, most awarded team, season record setters

2022, 2023 Rotor Riot US Freestyle Champion first place at the largest organized drone freestyle event in the world, 2024 Reserve Champion

EXPERIENCE

Lightcraft.TV, Los Angeles — Pilot, Engineering and Design Intern

JUNE 2022 - AUGUST 2023

Designed and fabricated frames and components for cinema-camera carrying acrobatic drones with 3D printers and CNC machinery. Assembled, tested, and tuned production drones and radio systems. Wrote custom software for lens framing and animated launchpad systems. Pilot for testing and on set, assistant for a shoot at Porsche.

Lazarus Computer Ministry, McLean — #1 Tech

AUGUST 2018 - PRESENT

Repaired, upgraded, and redistributed donated computers to church and social workers around the DC area and globally to teachers and missionaries in Honduras, Ghana, and many others. Designed a network imaging process and software for distributing rolling updates and custom pre-packaged software from a main server to speed up the refurbishing process.

Technology Support and Education for retirement communities, Northern Virginia

2020 - PRESENT

Volunteered to assist retirement community residents with diagnosing and resolving technical issues related to phones, computers, printers and tablets and created educational instruction related to technology.

- Waltonwood, Ashburn, VA
- Sunrise Assisted Living, Dulles, VA
- Lansdowne Woods, Lansdowne, VA

AWARDS (Continued)

2023 MultiGP 38th World Rank after qualifying and participating in the world championships

2023, 2024 NSE Gold Award for top 2 percentile Spanish II and III students

OUTSIDE INTERESTS

Drone Racing and Design

Designed drone frames and components, worked with manufacturers to fabricate parts, raced drones competitively on the international scale.

Learning and “inventing”

Always building something or learning to use new electronic components and microcontrollers along with their programming toolkits. Love learning to use new tools to create a finished product with PCBs, 3D Prints, or other techniques.

Travel

Love traveling and exploring new places. Made a goal of visiting all 50 states and finished it at 12, now visiting Europe and hoping to make it to China sometime soon.

Awana Ministries - 2012-present

Completed program of studies and community service every year, on track citation award.