Anna Brogowski

Controls, Robotics, and Autonomy Major | Secondary Focus: Space Systems

🢄 annabrogowski.me | ✉ superg98@vt.edu | ⓞ github.com/superg98 | 🔗 bit.ly/AnnaBLinkedIn

Skills

Programming	C++/C#/C · Python · Java · Matlab/R
Rendering	AutoCAD · Solidworks · Inventor
Tool Certification	Hand & Power Tools · Laser Cutting · CNC Routing · 3D Printing · Soldering
Other	Premiere Pro* · Photoshop* · Microsoft & Google Programs (Word, Excel, Google Doc, etc.)

*And similar programs

Experience

NASA VSAT Design Project *Blacksburg, VA*
Senior Design Project – Virginia Tech *Aug. 2021 - Now*

- Currently working on a controller for the NASA Vertical Solar Array project including design, presentation, and implementation of our ideas to our customers
- Organized meeting times between our design group, mentor, and NASA and SSAI customers

The Faser Lab *Blacksburg, VA*
Undergraduate Research – Virginia Tech *Aug. 2021 – Now*

- Assigned to upgrade, repair, and finish a pen tip for the Lightweight Surface Manipulation Systems 8-meter-long robotic arm and its ability to 3D print large pieces
- Worked with a small team to learn about it's current circuitry, programming, and design at the Faser warehouse

RoboGrinder *Blacksburg, VA*
Previous Project Lead, Current Programmer – VT *Aug. 2019 – Now*

- Helped facilitate design meetings for RoboGrinder's Engineer Robot in the RoboMaster competition by suggesting a more efficient approach to mechanism design
- Assisted in improving the Computer Vision of all 8 competition robots. This required reading through over 850 lines of code and adjusting methods to create better equations and algorithms for turret shooting and image sensing in C++

The Frith Lab *Blacksburg, VA*
University Learning Assistant – Virginia Tech *Aug. 2019 – Now*

- Prepared over 15 projects for the Virginia Tech freshman engineering classes
- Taught certification training to over 500 students in 5 different subjects
- Maintained cleanliness of the lab and the use of tools for safety and provided tours of the lab

New Zealand Study Abroad *New Zealand*
Virginia Tech RSAP *Summer 2018*

- Chosen for the New Zealand study abroad program which only has a 7% acceptance rate
- Traveled to both North and South islands to meet with 12 different companies and universities
- I was very fortunate to have met all the people from the companies, universities, hotels, restaurants, and more who taught me about the local areas and the Māori people

Internships

iD Tech *Blacksburg, VA*
Instructor – iD Virtual Tech Camps *Summer 2020 & Summer 2021*

- Taught over 250 students how to program in 3 languages, as well as use programs like Photoshop, Premiere Pro, Streamlabs, Unity, and Minecraft Modding in Forge
- Worked on developing 2 new projects for students to participate in, including creating your own pet (dog, cat, fish, etc.) in modded Minecraft and first-person viewpoints in Unity's C# programming

Kreisler Engineering & Manufacturing (United Flexible) *Elmwood Park, NJ*
Intern *June 2015 – July 2017*

- Completed 10 large projects including chemical inventory, research on ultrasonic transducers in chemical cleaning and the calibration of all company calipers and micrometers
- Checked over 200 engine tubing pieces for quality control in the Quality Systems Department

Education

Virginia Polytechnic Institute and State University *Blacksburg, VA*
Computer Engineering *Aug. 2017 – Dec. 2022 (planned graduation)*

- Primary Focus: Controls, Robotics, and Autonomy
- Secondary Focus: Space Systems

Activities

Hypatia Living Learning Community *Blacksburg, VA*
Communications Committee Liaison – Virginia Tech *Aug. 2017 – Now*

- Accepted into the highly competitive engineering living/learning community: Galipatia
- Provided over 25 hours of community service and outreach
- Mentored 5 students through their first year of college in Virginia Tech Engineering
- Lead three groups of ~16 students in managing the communications committee for Galipatia

Pilot's License *Kansas City, MO/Alexandria, NJ/Blacksburg, VA*
Private Pilot Lessons

- Over 90 hours total in the cockpit of the following: Cessna 172, Cessna 152, Piper Warrior
- Working toward an official Private Certificate

Hokie Astronaut Corps *Blacksburg, VA*
Virginia Tech *Fall 2020*

- Participated in the new Hokie Astronaut Corps with 160 other students leaning tips for flight lessons, space science operations, spaceflight technology, and spaceflight health and safety

Freshman NASA Design Team *Blacksburg, VA*
Virginia Tech *Aug. 2017 – May 2018*

- Selected one of four issues presented to our team by NASA and had to design a solution to this problem
- My design of a plug for space debris holes in the side of the space station was chosen out of 20 designs for the Virginia Tech team and was sent to be tested in the NASA Neutral Buoyancy pools

Girl Scouts *Bergen County, NJ*
Gold, Silver, and Bronze Award recipient