

Sam (Samantha) Civil

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EDUCATION: Class of 2025, Vanderbilt University, Nashville, TN

Major: Mechanical Engineering; *Minor:* Jazz Studies

Cornelius Vanderbilt Scholar - Full-Tuition Scholarship recipient

National Merit Scholarship Program: **Finalist**, 2021

2021: Advanced High School Diploma, Oceanside High School, Oceanside, New York 11572

LEADERSHIP & EXPERIENCE

L3Harris Technologies, Space Airborne Systems (SAS): Integration & Test Engineering Intern, June-Aug 2023, Palm Bay, FL

- Worked on Scorpius small satellite program (ISR) supporting Systems I&T:
 - Developed/Updated test plans & procedures for Space Vehicle subsystems
 - Designed testbed configurations & test flow diagrams
 - Created matrix mapping System Threads to hardware & routing System Requirements to Test Cases for SV subsystems for most efficient test cycling and equipment reuse
- Traced System Requirements Verification Methods & Artifacts in DOORS
 - Ensured early testbed design for program CDR
- Developed Scorpius System Artifacts Design Matrix
 - Consolidated/Organized program documentation via reformatting, cross-linking/auto-populating using VBA
 - Created Power Automate tasks for weekly archived flow & self-updating log for documentation
 - Produced detailed instructions manual & presented entire workbook to Systems Engineering team

Lockheed Martin Space: Summer Engineering Intern, June-August 2022, Highlands Ranch, CO

- Worked on the HiveStar™ team with 5 other interns to integrate HiveStar™'s autonomous mission tasking software with a COTS (Commercial Off The Shelf) ground rover to further 5G communications and present extraterrestrial capabilities
- Researched and modified existing python repositories to program remote data sensing units for 5G communication
- Designed structures for mounting hardware onto autonomous rover with Creo, 3D printed subcomponents for team
- Led a live demonstration, presenting to LM's European VPs as well as other internal LM employees, providing a live narration and answering questions

Vanderbilt Robotics: Mechanical Team Member, Sept 2022-Current

- Deposition / Excavation team, designing bucket chain system for autonomous mining rover, machining frame components

Vanderbilt Engineering Design Studio: Maker Space Student Mentor and VP of Personnel, Sept 2021-Current

- Assists engineering students with 3D printing projects, CAD designs, soldering and shop-like activities

Vanderbilt Aerospace Design Laboratory: Rocket Team Member, Oct 2021-Current

- The rocket team constructs payloads for manufactured spacecraft to coincide with challenges that NASA releases every year

SKILLS

- CAD: SolidWorks Certification, experience with Creo, Autodesk Fusion 360, AutoCad
- Computer Programming: Proficient in Python, experience in Java, JavaScript, HTML

- Machining: Lots of work on the mill, experience with lathe
- Strong Work Ethic, Quick Learner, Natural Leader, Eager Collaborator, Efficient Communicator
- Experience with AGILE methodology & DOORS software
- Self-taught Excel proficiency
- Fluent in Russian

Additional Organizations/Awards:

STEM

- University of Illinois at Urbana-Champaign Aerospace Institute Summer Engineering Program, 2020
- Columbia University Summer Immersion Program - Blockchain, AI & Machine Learning, 2020
- “The Right Stuff” Leadership Award, NASA Space Program, Huntsville, AL, 2019
- High School Ambassador & Panelist; “Bit By Bit Breaking the Barrier for Girls in Tech Conference”, 2019-2020

Music/Misc

- VCO (Vanderbilt Commodore Orchestra) First Chair Bassoonist: Jan 2022-Present
- Vanderbilt Jazz Combo, Pianist: Sept 2021-Present
- NAFME All-National Orchestra Ensemble Second Chair Bassoon, 2021
- NAFME All-Eastern Band Ensemble First Chair Bassoon, 2021
- Selected for both Jazz Piano and Bassoon: New York All-State, 2019
- Co-Founder of “Holland Wood” Rock Band, 2018-2020; performed at local fundraisers
- Oceanside High School Literary Magazine, President and Lead Editor, 2020-2021; Vice President, Editor-In-Chief 2018-2020
- Oceanside High School Tri-M Music Honor Society President, 2020-2021; Treasurer, 2018, 2019
- Oceanside High School Marching Band, Pit Captain 2019-2021; Quartermaster 2020-2021