

LANCE D. NICHOLS

(406) 370-9012

LANCE.DONALD.NICHOLS@GMAIL.COM

PROFILE

I am currently a Senior at Montana State University, pursuing a degree in Mechanical Engineering, a minor in Mechatronics, and am enrolled in the Honors College. I have a strong passion for physics, calculus, electronics, and computing, as well as film-making and drone piloting in my free time.

SKILLS

- Experienced in Python
- Knowledgeable of Java, C, C# and MatLab
- Extensive FDM 3D Printing Experience
- Extensive CAD experience in Autodesk Inventor and SolidWorks
- Proficient in Fusion 360
- UAS flying experience
- Algorithm programming experience
- Microcontroller and control circuit design experience
- Ready to learn and ask questions about new systems
- Design for manufacturing

VOLUNTEERING

- Safe Kids Fair
- FIRST Lego League judging
- SpectrUM robotics camp assistant
- FIRST Robotics Competition Mentor
- MSGC Tabling volunteer
- Total Hours: 215

References available upon request

EDUCATION

Montana State University - BS Mechanical Engineering Minor - Mechatronics

Bozeman, MT | Aug 2018 - April 2022

-Cumulative GPA: 3.56

ACTIVITIES/AWARDS

- Honors College
- Deans List (Fall 2018 - Spring 2021)
- President of Tactical Action Gaming Club at MSU
- Head Mechanical and Electrical Engineer of Chem-E car club at MSU
- Senior Member of MSGC Borealis Ballooning Club at MSU
- John C Felton Scholarship

EXPERIENCE HISTORY

NASA High Altitude Student Platform (December 2020- Dec 2021) Student Leader and Systems Engineer

- Communicate with NASA to ensure payload compliance
- Manage project timeline for other engineers
- Lead the mechanical and electrical branches of the payload

Montana Space Grant Consortium (May 2019-August 2021)

Researcher (June 2021-August 2021)

- Designed redundant flight termination system
- Guided interns approaching new problems

Research Apprentice (September 2020-June 2021)

- Maintained 3D printers
- Manufactured previously designed laser cutter

Researcher (April 2020-August 2020)

- Interfaced mechanical and electrical systems
- Managed high altitude thermal control systems
- Worked with CAD software to design flight systems

Research Apprentice (August 2019-April 2020)

- Designed and manufactured a large working area CNC laser cutter
- Researcher (May 2019 - August 2019)
- Designed systems for high altitude balloon flight control systems
- Programmed control systems for autonomous mechanisms

C.M. Manufacturing (June 2018-August 2018)

High Precision Machine Shop Quality Assurance

- Ensured tolerances using Micrometers, CMM, and Optical Comparators based on technical drawings utilizing GD&T
- Post Processing of machined aircraft parts

Project Portfolio at
LanceNichols.com
then click portfolio