CADE BYER

123-456-7890 | email@email.com | profilelink.com

EDUCATION

University of Kentucky, Lexington, KY — Expected May 2026
B.S., Mechanical Engineering, 4.0 GPA
Minor in Mathematics

EXPERIENCE

University of Kentucky, Lexington, KY — January 2023-Present
College of Engineering Research Fellow – *Autonomy, Robotics, and Control Lab*

- Designed and built fan-powered satellite testbed robot for space experiments on flat floor
- Used soldering iron and other hand tools to assemble satellite hardware
- Wrote Arduino C/C++ code for I2C and SPI communication, radio module, IMU sensors, and datalogging
- Simulated dynamical system of satellite with actuator dynamics and time delay in MATLAB
- Designed and simulated PD and LQR controllers for attitude control and Kalman filter for estimation in MATLAB
- Wrote grant proposal (funded) for rendezvous and orbital mechanics research; learned about orbital mechanics and attitude dynamics

University of Kentucky, Lexington, KY — January 2024-May 2024
Tau Beta Pi Peer Tutor

- Helped students with subjects like Thermodynamics, Fluid Mechanics, Dynamics, Solids, and Statics

Barnes Aerospace, Cincinatti, OH — May 2023-August 2023
Intern – *MRO*

- FAA Repair Station for repair on high pressure turbine jet engine shrouds
- Performed material and process studies to decrease turnaround time and reduce defects
- Dispositioned nonconforming hardware to bring back into manufacturing process
- Project lead on 3D printing project for air seals on test stand, troubleshot 3D printing defects
- Designed parts in SolidWorks, used GD&T for part drawings

GRANTS AND AWARDS

- NASA KY Space Grant REU, $10,000 — 2024
- College of Engineering Undergraduate Research Fellowship, $2,500 — 2024
- Dean's List — 2022-Present

TECHNICAL STRENGTHS

C/C++, Python, MATLAB
Hardware Development, Arduino, Robotics
Guidance, Navigation, and Control
Applied Math, Orbital Mechanics, SolidWorks
Creo, Excel, LaTeX, Project management

PROFESSIONAL ASSOCIATIONS

IEEE Member
AIAA Member
ASME Member

ACTIVITIES

- D1 Cross Country and Track
  - Practiced time management with class and athletics (20 hour weekly commitment)
  - Attended personal development sessions and volunteer work with athletics