Dan Miltenberger

danmiltenberger25@gmail.com | www.danmiltenberger.com

Skills

Design: Solidworks, Fusion360, Onshape, ANSYS
Code: Python, Excel, VBA, C++, GIT, MATLAB
Lab: Multimeters, Oscilloscopes, Calipers, Soldering, Microelectronics, Power Tools

Education

University of Colorado Boulder – Boulder, CO   Expected May 2027
- Master of Science in Mechanical Engineering, Design Track

Virginia Commonwealth University – Richmond, VA   July 2021 – May 2025
- Bachelor of Science in Mechanical Engineering, Minor in Mathematics
- 3.80 GPA, Dean's List, Tau Beta Pi Engineering Honors Society Scholar
- Emerging Leaders Program Mentee and Mentor

Experience

R&D / OEM Product Development Intern, B. Braun Medical Inc – Allentown, PA   May 2024 – Aug 2024
- Voted best out of 40 at end of summer intern presentation
- Led IV spike validation project from start to finish: ISO standards research, collecting feedback, designing custom fixtures, coding data analysis tool, reporting to client
- Wrote and executed over 30 testing procedures that met FDA, MDA regulations by collaborating with quality, manufacturing, supply, and R&D departments
- Hands-on experience in extrusion shop, packaging, sterilization, clean rooms, and customer calls

Undergraduate Research Assistant, Aerosols in Medicine Lab – Richmond, VA   Sep 2023 – Present
- Worked with PI, graduate students to develop dispersion device for life-saving infant surfactant
- Created custom STL generator from CT scans to accelerate research, saving over 5 hours per test
- Developed excellent organization and communication skills in *Gates Foundation* funded lab through postdoc one-on-one mentoring and collaboration with fellow undergraduates

Industrial Engineering Intern, Mack Trucks (Volvo Group) – Macungie, PA   May 2023 – Aug 2023
- Automated logistics tasks using Python and PowerBI, saving 700 hours and $40,000 per year
- Recognized need and built custom program to automatically update diagrams of over 500 stations

Makerspace Student Assistant, James Branch Cabell Library – Richmond, VA   Aug 2021 – Present
- Taught over 300 students and faculty 3D printing and laser cutting techniques in weekly lessons
- Interacted with public, solving technical issues in videography, audio, electronics, and more by reading documentation and by technical troubleshooting

Projects

Breathe Easy – Senior Capstone
- Independently researched and proposed custom project to create a rugged and cost-effective spirometer
- Collaborated with biomedical and mechanical engineering students towards mechatronics-based design
- Developed prototype on time and under budget by using project management skills and clear communication
- Arranged meeting with ICU lung health doctor to determine constraints and real-world impact