

John Grundy

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Education

B.S. in Mechanical Engineering

University of Idaho, Moscow, ID.

GPA: 4.0

Expected Graduation: May 2026

Highschool Diploma

Compass Honors Highschool, Meridian, ID.

GPA: 4.5

SAT: 1540

Graduated: Valedictorian, May 2023

Engineering Experience

MEP Engineering Internship

Musgrove Engineering P.A., Boise, ID.

Summer 2025 - Present

- Created higher-efficiency suite of REVIT drafting tools via C# and Visual Studio
- Automated company-wide drafting processes for efficiency in Revit
- Completed heating and cooling load calculations for building equipment sizing
- Drafted HVAC and plumbing plans with AutoCAD and REVIT
- Punched job sites to ensure contractor compliance with plans
- Ensured design compliance with applicable plumbing and ASHRAE codes and standards

Undergraduate Aerodynamics Research

University of Idaho Experimental Fluids Laboratory, Moscow, ID.

Fall 2023 – Spring 2025

- Conducted drag and lift research on NACA 0012 airfoil in a wind tunnel
- Wrote Python and MATLAB math models to extract coefficient of drag and lift
- Used oscilloscope in circuit debugging and signal analysis
- Created sensor circuits with operational amplifiers
- Awarded \$1,000 grant to fund research
- Calibrated pressure transducers
- Created LabView codes to collect data and control stepper motor
- Collected data and controlled stepper motor with National Instruments DAQ devices

Engineering Projects

Tipsy Targeter

Mechanical Engineering Design Class

Spring 2024

- Nominated as leader for a team of 4
- Designed a ping-pong ball turret to allow users to practice returning the ball
- Created custom flywheel RPM sensors and PID loop to control pitch strength
- Coded a multilayer user interface to allow game mode, pause, and exit features
- Compiled process documentation including minutes, revision history, and code history
- Generated manufacturing package with assembly instructions, BOMs, budgeting, CAD files

J5 Whirlwind Radial Engine Modeling

SolidWorks Design Class

Spring 2024

- Nominated as leader for a team of 6
- Created SolidWorks model of radial engine comprised of 900+ parts from drawing package
- Generated complete process documentation and final drawing package
- Animated engine functionality

Technical Skills and Certifications

Machines:

Lathe

Milling

Drill Press

3D Printer

Coding:

Python

Arduino

MATLAB

LABVIEW

C#

Other:

EES

AutoCAD

REVIT

SOLIDWORKS CSWA Certified

References And Employment History Available Upon Request