
Kordian.
ABOUT
SKILLS
EXPERIENCE
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GOALS
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RESUME
PORTFOLIO 2026
KORDIAN
CEBULLA
Mechanical Engineering Student specializing in CNC Machining, Robotics, and Design.
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Engineering Precision.

I am an ambitious and driven Mechanical Engineering student at Montana State University, combining academic rigor with hands-on expertise in CNC machining and robotics. My passion lies in bridging the gap between design and manufacturing, ensuring that innovative ideas are executed with industrial precision.

Education

BS Mechanical Engineering
Montana State University, 2026

Certifications

CNC Machining
Montana State University, 2022

LOCATION

Bozeman, MT

GPA

3.62

LANGUAGES

English, Polish (Fluent)

// DEAN'S LIST: Fall 2021, Spring 2024, Fall 2024

Technical Arsenal

A comprehensive toolkit combining theoretical engineering knowledge with practical manufacturing expertise.

Design & Modeling

SOLIDWORKS | Fusion 360 | MATLAB | LabVIEW

Programming

Python | C++ / Arduino | HTML/CSS

Data & Stats

Minitab | Excel (Advanced) | Data Analysis

Engineering

Robotics | 3D Printing | Soldering | Problem Solving | Project Management

Manufacturing

CNC Milling | CNC Turning | Manual Machining | Quality Inspection

Languages

English (Native) | Polish (Fluent)

Professional Journey

Advanced Innovation, Inc.

March 2022 - Present

CNC Machinist

Belgrade, MT

- Operate and program up to 8 CNC mills simultaneously for precision components.
- Troubleshoot and maintain equipment to reduce downtime.
- Conduct quality inspections ensuring compliance with client specs.
- Facilitated training for new employees on CNC operation.

Hondo Garage

January 2023 - July 2024

CNC Machinist / Assembly / Media Manager

Belgrade, MT

- Designed and 3D-printed custom fixtures to improve efficiency.
- Produced professional product photography and videography for marketing.
- Operated CNC mills for prototype and production runs.

Proof

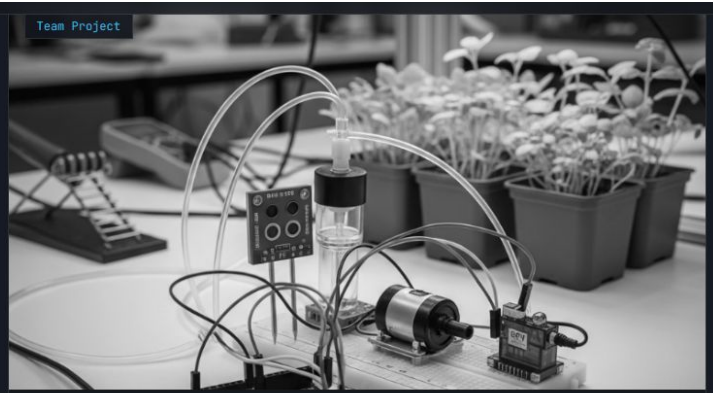
January 2023 - July 2024

CNC Machinist / Assembly

Belgrade, MT

- Designed calibration fixtures for automated CNC-loading robot arms, reducing setup time by 30%.
- Built custom enclosures for laser engravers, improving workflow efficiency by 45%.
- Executed rigorous quality checks on mechanical products.

Team Project



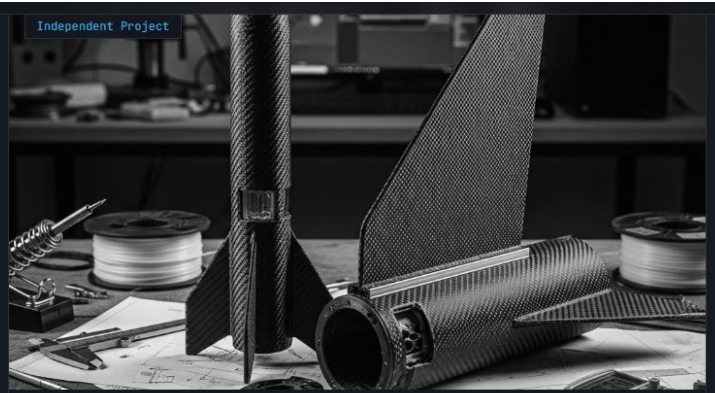
Automated Garden Watering System

May 2025 - June 2025

Led the design of an automated irrigation prototype with stepper-motor-controlled flow distribution. Integrated microcontrollers and environmental sensors for real-time feedback.

- Modular water distribution hub
- Soil moisture & temperature feedback
- Automated microclimate regulation
- Programmable grow lights

Independent Project



Hobby Rocketry Components

Jan 2024 - Mar 2024

Designed, modeled, and 3D-printed fin cans for high-power hobby rockets. Conducted stress tests on multiple materials to evaluate durability under launch loads.

- Stress tested PLA, PETG, Nylon
- Engineered fly-away rail guide
- Improved launch stability
- Market feasibility analysis

CAREER OBJECTIVE

Seeking Asymmetrical Impact.

I am looking for a challenging role where engineering rigor meets massive scale. My goal is simple: become a Senior Engineer at an industry-defining organization.

The Role

Targeting **Internships** or **Junior Engineering** positions that offer a clear path to leadership. I want to be in the trenches where the real engineering happens.

The Arena

Aiming for aerospace, semiconductors, or advanced manufacturing giants like **Boeing** or **TSMC**. Anywhere where precision is non-negotiable and the stakes are high.

The Fuel

Driven by the unrelenting expectations of my **Polish heritage**. "Good enough" is not in my vocabulary. I bring an intense work ethic and a hunger to prove myself on the world stage.

Watering System

Project Overview

Led the design and development of an automated irrigation prototype aimed at precision agriculture for small-scale indoor farming. The system utilizes a modular water distribution hub controlled by stepper motors to deliver exact water quantities to multiple plant zones, significantly reducing water waste compared to traditional drip systems.

Key Learnings

1. **Systems Integration**
   Learned to bridge the gap between mechanical flow components and electronic control systems, ensuring stepper motors synchronized perfectly with pump cycles.

2. **Feedback Loop Design**
   Implemented PID-like control logic for environmental regulation, using sensor data to dynamically adjust fan speeds and watering schedules.

3. **Rapid Prototyping**
   Iterated on the distribution hub design 4 times in 2 weeks using 3D printing to fix leakage and pressure drop issues.

Industry Application

This project demonstrates my ability to take a complex electromechanical system from concept to functional prototype. In a professional setting, this translates to:

Cross-Functional Collaboration
Ability to speak "EE" and "ME" languages, facilitating better communication between hardware and software teams.

Reliability Engineering
Experience designing for failure modes (e.g., leak containment, sensor drift) critical for mission-critical hardware.

Technical Stack

SolidWorks · C++ / Arduino · 3D Printing (PETG) · Fluid Dynamics · Sensors (I2C) · Stepper Motors

Hardware Used

Microcontroller	Arduino Mega
Actuators	NEMA 17 Steppers
Sensors	Capacitive Moisture
Power	12V 5A Supply