

# Rylan Miller

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## Education

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- Colorado School of Mines
- BS, Mechanical Engineering, 2022

## Experience

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- Spark Grills - Mechanical Engineering May. 2019 - Sept. 2020
  - Boulder-based startup producing temperature-controlled charcoal grills
  - Product Development Lifecycle: Design, Testing, Manufacturing, etc
    - Thermocouples | Arduino | Excel/Sheets (some scripting) | SolidWorks
    - Testing Documentation | Prototype modification “bookkeeping”
    - 3d printing | Sheet metal & hand tools | CNC | Modifications of existing prototypes
  - Scrum/Agile/Fast-paced/Startup environment
    - Daily standup/check-ins | Bi-weekly cycles with group collaboration meetings | Rapid prototyping and iterations
  - Quality Assurance/DFM/FMEA/Full-scale Manufacturing & Suppliers
    - Supported communication and management of overseas manufacturers, vendors, suppliers, and assembling processes
    - Resolved quality assurance issues, defects, and the like both on existing products arrived from overseas, as well as in the overseas processes preventing those defects from appearing in future product batches and enabling all manufactured products to be of high quality for an excellent consumer experience
- Mechanical Design Project - Milwaukee Tools Aug. 2019 - May. 2020
  - DFM for additive manufacturing
  - Successfully redesigned existing Milwaukee tools to use additive manufacturing for Milwaukee’s R&D department through a Scrum/Agile design cycle
- Semi-ongoing Project - Oneliner Dec. 2018 --
  - Teambuilding | Leadership | Business Management | Time management/Delegation | Communication | Problem Solving | UI | Software Development
- Freelance - Product Design Assistance Dec. 2017 --
  - Creating & Modifying 3D CAD Models
  - Design For manufacturing

## **Certifications & Skills**

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- 3D CAD Proficiency
  - **Parametric:** Solidworks (CSWA) | Autodesk Inventor | Fusion 360
  - **Non-Parametric:** SketchUp | Blender | Z Brush | 3DF Zephyr
- Manufacturing
  - **3D printers & CNC:** Cura | GRBL | X-Carve | Haas | Fusion 360 | Solidworks
  - **Manual Machines:** Bridgeport mills & lathes | Fusion 360 Drawings | Solidworks Drawings | GD&T
  - **Hand tools:** Various woodworking and hand metalworking tools
- Programming/Coding
  - LabView | Matlab | MathCAD | Arduino-C | EES | Python | C++ | Github Copilot