Elijah W Smith
Email: eli_smith@mines.edu

Phone: 719-221-2731

GitHub: Eli1254 (Eli)

LinkedIn: **linkedin.com/in/elijah-smith-2b0016386**

Summary:
Mechanical Engineering student at Colorado School of Mines with hands-on experience in automotive restoration, basic fabrication, and software-based vehicle data analysis. Have experience in CAD design, engine maintenance, and data visualization.

Skills:

- CAD & Design: SolidWorks (CSWA), Rhino7
- Programming & Data: Basic Competency in Python, C++, CSV analysis
- Automotive & Fabrication: Engine assembly, basic machining operations, bicycle mechanics.
- Other Tools: Git, Excel, Arduino

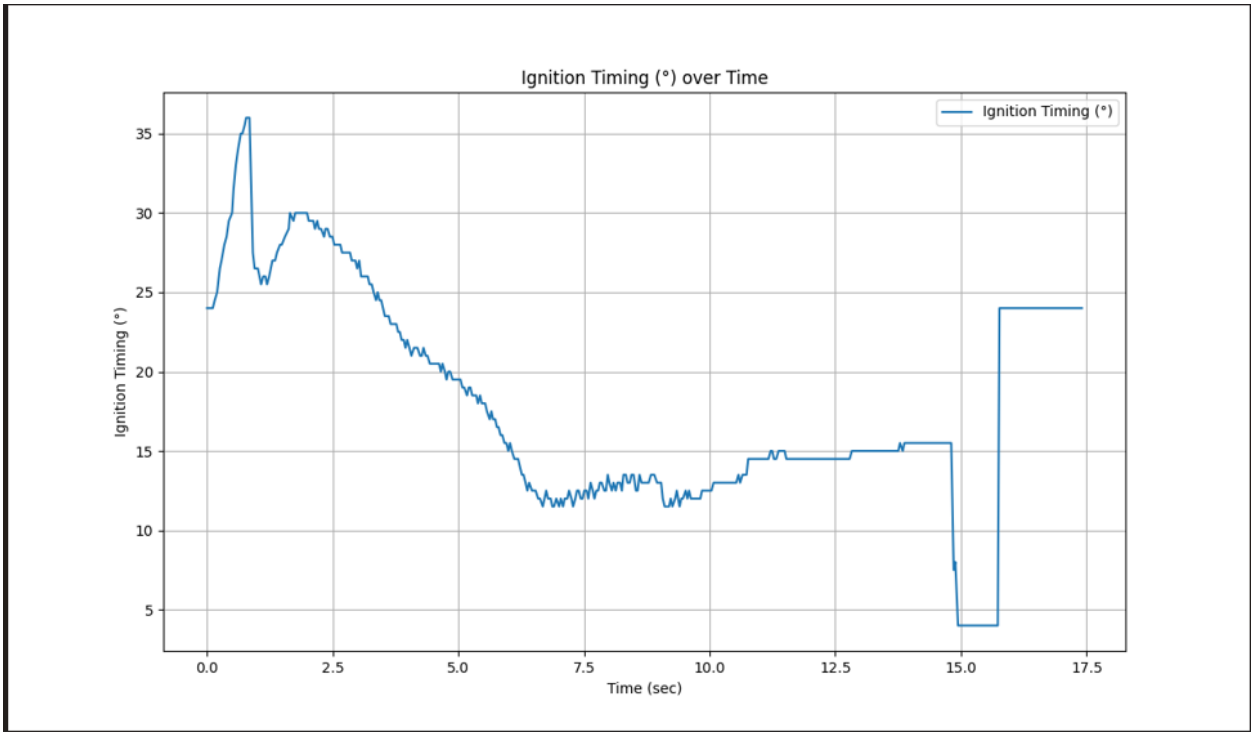
Selected Projects:

Car Datalog Analyzer Tool – Python, matplotlib, CSV processing

- Developed a program to read, visualize, and analyze vehicle data (RPM, torque, boost) using COBB ACCESSPORT Datalogging capabilities.
- Features interactive multiple-choice and fill-in-the-blank questions with scoring.
- Built as part of CSCI 100 final project to demonstrate automotive software integration.

Link: Streamlit

Example:



[Ignition timing graph sourced analyzer tool]

2011 Subaru WRX Upgrades – Mechanical, fabrication, problem-solving

- Replaced clutch, oil pickup, and windage tray; performed extensive maintenance and repairs.
- Diagnosed and fixed crankshaft sealing issue using research and precision tooling.
- Developed problem-solving skills, patience, and practical hands-on experience.
- Later installed aftermarket intake system components to boost performance and reliability.

Example:

[Upgraded oil pickup and windage tray in EJ255 engine]

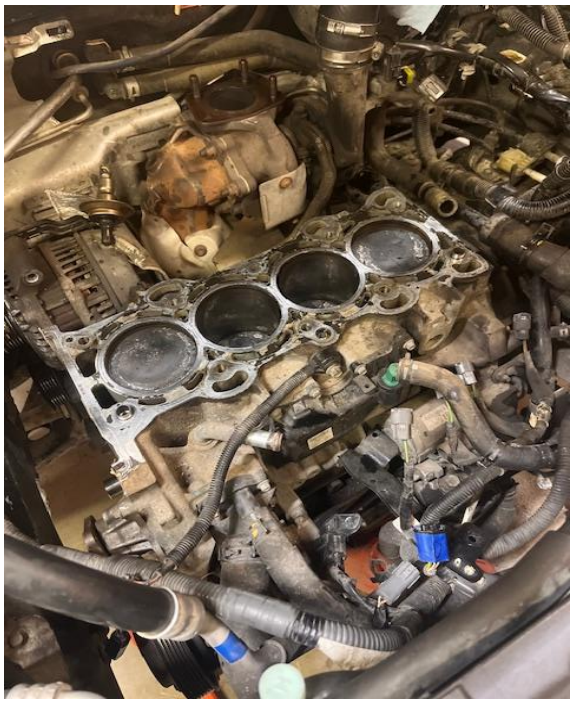
Automotive Restoration Projects – Toyota MR2, Mazda Speed3, Nissan D21, Ford Ranger

- Restored multiple vehicles from long-term storage, including engine rebuilds, suspension repairs, and basic body work.
- Learned turbo engine fundamentals, FI systems, retiming engines, and suspension component functionality.
- Gained experience in project management, collaboration, and applying engineering principles to real-world vehicles.

Example 1:

[Project PreRunner Truck]

Example 2:



[Upper engine teardown 2010 MazdaSpeed3]

Example 3:

[Refinished cylinder head for 2010 MazdaSpeed3]