

# ECU Log Analysis

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May 2024



[https://gjacobs314.github.io/ecu\\_log\\_analysis/](https://gjacobs314.github.io/ecu_log_analysis/)

This React-based web application allows users to upload ECU (Engine Control Unit) data logs retrieved over CAN for detailed analysis, aiding in diagnosing vehicle performance issues and evaluating operational parameters. The application utilizes CSV file parsing and preprocessing to extract relevant data fields, which are then visualized through interactive charts generated with Chart.js. Users can drag and drop CSV files directly onto the interface, triggering automatic parsing and analysis of the data locally without a need for file upload and storage. The system focuses on key ECU parameters such as engine speed, boost pressure, intake air temperature, fuel system metrics, ignition timing, and vehicle speed, among others. Analysis results are presented dynamically, highlighting potential abnormalities or performance optimizations based on logged parameters. This tool offers a user-friendly and insightful platform for automotive enthusiasts, mechanics, and engineers to delve into complex ECU log data for informed decision-making, performance data, and diagnostic insights.