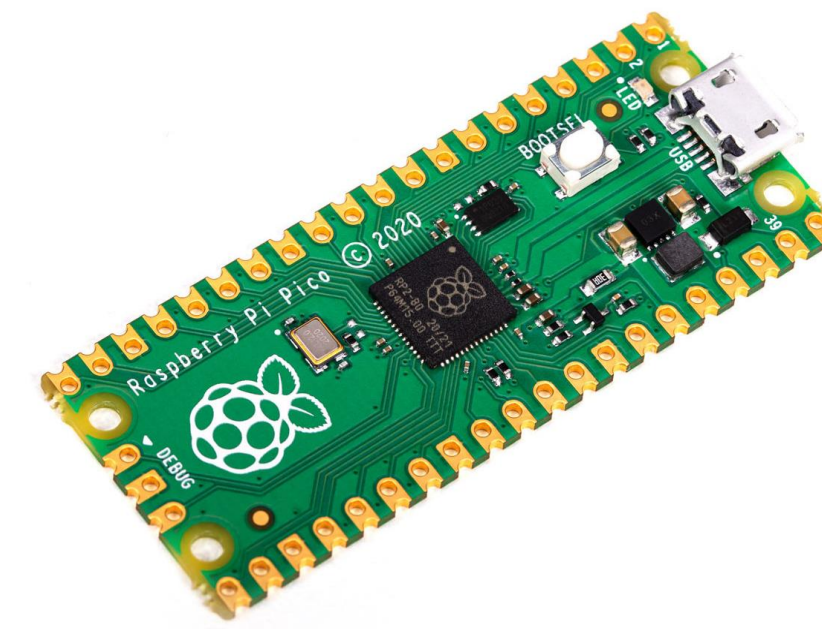


OVEN PROFILER DASHBOARD

Team Members: Garret Doty, Brayden Meduna

Sponsor: Marvin



Business Need

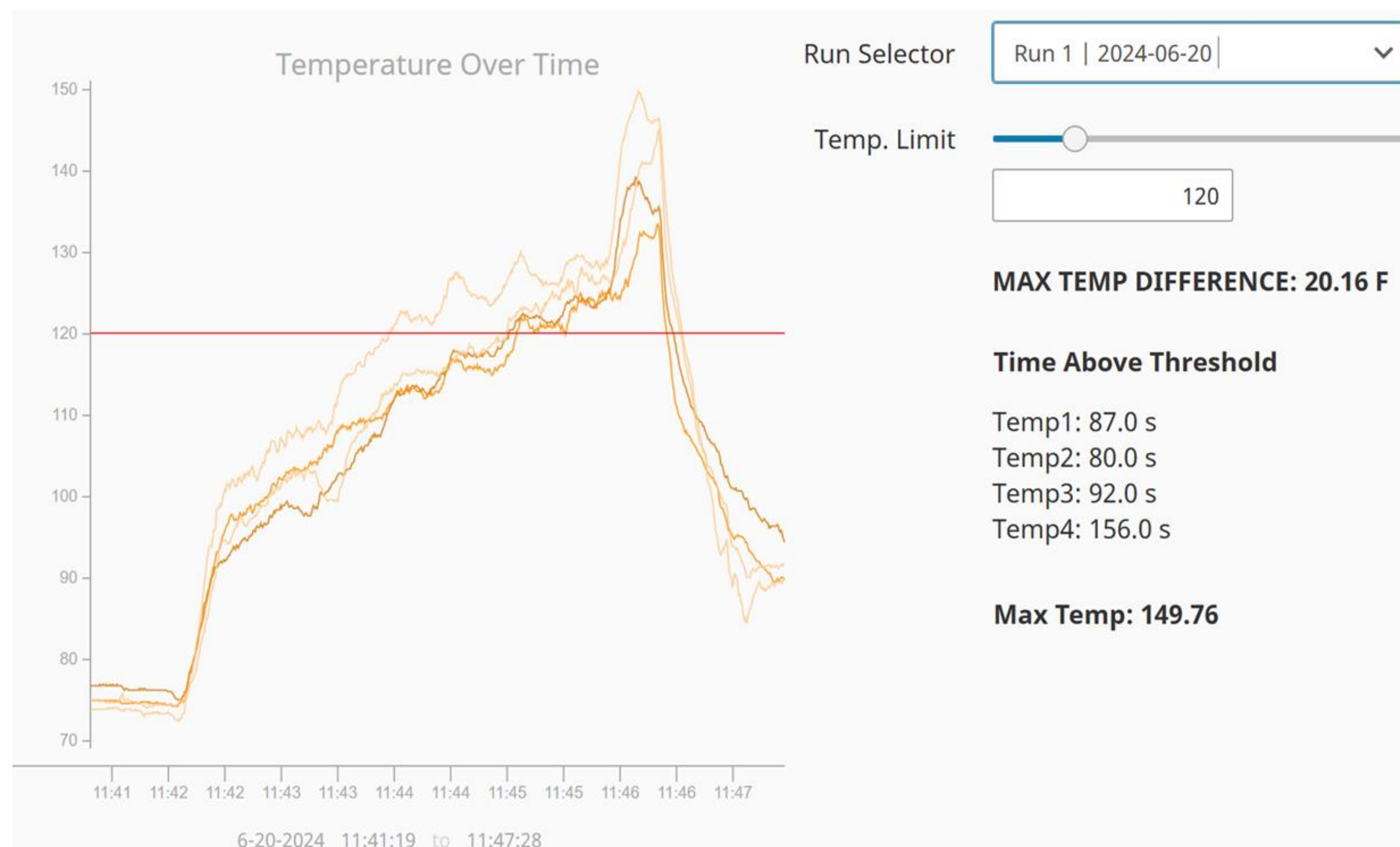
Marvin had a need for a way to collect data on the temperature throughout some of their ovens. They had an existing solution, but the goal of this project was to update the project and make the process automated as much as possible.

NDSU's Part

With a group effort of both the ECE and CSCI departments at NDSU they were able to create a project in which an ECE team created a new board for the data collection, and a process and dashboard was created by the computer science team.

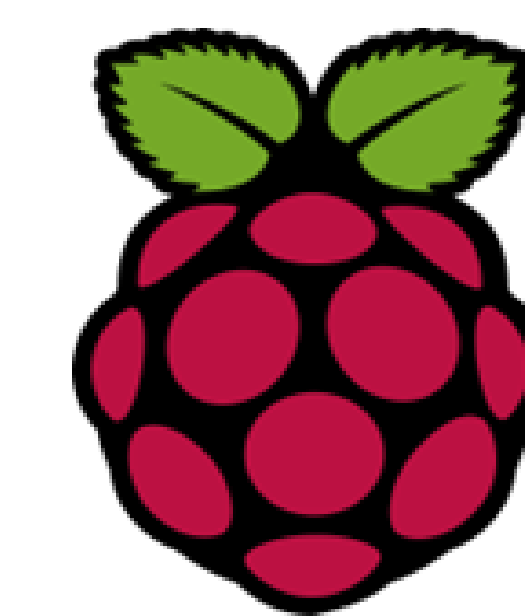
Our Solution

Our solution for the problem was to work with a python script to get the data from the ECE board and then store the data in a database. From there we created a dashboard with Ignition Perspective to display the data and calculations based on the data.



Business Value

This project allows Marvin to increase the frequency of doing oven testing by making the process much more automated. With current processes they are not able to make sure their ovens are in spec as often as they would like to, with the new board and dashboard it can be ran and the data can be seen in real time.



Profiler

- Pi Pico Micro-controller
- Writes to a text file



Ingestion

- Python Script
- Inserts to Database



Database

- Microsoft SQL Server



Dashboard

- Ignition Perspective Module

