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Weekly Report

What I did:

- Worked with Lu to finish the python script for querying data from ncstate database
- Collect some more CNC data
- Finish the script to convert all the raw data files to a well-formatted input
 - Before: 1000+ files with following information

```
[{"Status":0,"TagName":"","[New_Shortcut]X1.CurrentPosition","TagValue":198,"TimeStamp":"\\Date(1587214658270-0400)\\"}, {"Status":0,"TagName":"","[New_Shortcut]X1.ActualPosition","TagValue":198,"TimeStamp":"\\Date(1587214658270-0400)\\"}, {"Status":0,"TagName":"","[New_Shortcut]X1.ActualVelocity","TagValue":0,"TimeStamp":"\\Date(1587214658270-0400)\\"}, {"Status":0,"TagName":"","[New_Shortcut]X1.ActualAcceleration","TagValue":0,"TimeStamp":"\\Date(1587214658270-0400)\\"}, {"Status":0,"TagName":"","[New_Shortcut]X1.CommandPosition","TagValue":198,"TimeStamp":"\\Date(1587214658270-0400)\\"}, {"Status":0,"TagName":"","[New_Shortcut]X1.CommandVelocity","TagValue":0,"TimeStamp":"\\Date(1587214668270-0400)\\"}, {"Status":0,"TagName":"","[New_Shortcut]X1.CommandAcceleration","TagValue":0,"TimeStamp":"\\Date(1587214658270-0400)\\"}, {"Status":0,"TagName":"","[New_Shortcut]X1.CurrentFeedBack","TagValue":-0.320378,"TimeStamp":"\\Date(1587214668270-0400)\\"}, {"Status":0,"TagName":"","[New_Shortcut]X1.OutputCurrent","TagValue":0.827825,"TimeStamp":"\\Date(1587214658270-0400)\\"}, {"Status":0,"TagName":"","[New_Shortcut]X1.DCBusVoltage","TagValue":325.541,"TimeStamp":"\\Date(1587214658270-0400)\\"}]
```

- After: well-format matrix input, easy to read and process

[illegible]

- Start working on script to preprocessing data
- Continue research for state-of-the-art way of performing feature extraction

Goal for next week:

- Start working on script to filter and plotting data
- Continue research for state-of-the-art way of performing feature extraction