# Progress Report
# Week of August 17, 2020

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## Weekly Goals

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## Daily Log

### Monday, August 17

- Network Analytics Discussion meeting.
  - Petya is looking across all pairs of PS nodes and is measuring the standard deviation of packetloss across. Identifying pairs that have a sigma greater than 3. Not seeing very many. When looking at a single path, the data looks very different. Measuring variance is a done normally, though the definition is not Guassian (it's heavily skewed and distributed between 0 and 1). Toss things that are always at 100% loss, but those that are almost always 100% but dip down sometimes are worth exploring.
  - Nada, Ilija's wife, was looking for an interesting data set to explore. Using `ps_owd` and collected data. Filtered out all high latencies (all coming from slovakia). Removed hosts that didn't serve as source and destination. 60 measurements made per pair per minute, so why are there ones that have 10000+ measurements in the span of an hour. Whoever installed the node didn't choose enough NTP servers to test to or they just chose a bad one. We recommend at least 4 to 6 NTPs. If you do, you should be able to hold to a ms. Corrections improved things marginally, but didn't fix things!
  - Soundar started loading data for ESNet. Heap error in Soundar's code.
  - Tommy was working on redoing a lot of dashboards from last week, because they weren't very informative. Eliminated a dropdown bar from a bunch of pages that weren't using it. Made buttons more obviously buttons (mouse-overs). Made more narrative based visualizations (with Ilija's help). Renamed graphs to be more understandable. Select host, destination and see whether there is a significant variation in throughput.
  - I discussed my work from last week:
    * Can't do complicated things in SQL, but Petya pointed out that it is an option.
    * Can translate from SQL to DSL via the Console, but has to be cleaned up significantly.
- Read up on helpers and scan for ES in python, and scroll in ES.
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### Tuesday, August 18

- Learned about generators and how to work with them in Python.
- Adapted my code to use scan in place of search and leverage the resulting generator (instead of dictionary).
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### Wednesday, August 19

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## Thursday, August 20

- Scan doesn't work with aggregations
- Search doesn't give all results
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## Friday, August 21

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# Achievements

## I learned about...

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## I created...

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## Roadblocks

### Questions

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### Problems

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### Challenges

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## Plans for Next Week

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