**What Aman would like to achieve by end of this summer internship:**

1. Gain experience with industry-utilized data science tools and applications for analytics, modeling, and insights.
2. Be able to participate in holistic projects where I can learn and employ new data science skills, while still challenging myself. Work with large datasets, leverage techniques in ML and data mining, and develop robust models.
3. Network with professionals and fellow interns within and outside GDIA. Meet individuals I can share personal project ideas, seek advice, and lead initiatives with.
4. Learn more about the history, values, and projects at Ford and across the enterprise.
5. Give back to Ford and the community and provide high-quality work.

**What are objectives that Aman would be evaluated based on through this summer internship:**

1. Successfully on-board at Ford Motor Company. Complete GDIA Connected vehicle analytics onboarding, learn timekeeping. Connect to Hadoop infrastructure HPC.
2. Learn and demonstrate competency in data analytics tools, including but not limited to: (1) HiveQL; (2) PySpark; (3) Python. Competency is defined by being able to (1) query and view raw data (HIVE); (2) extract, merge, aggregate, save data (Spark); (3) analyze, visualize, model data (Python).
3. Analysis of Evaporator Request vs. Status:
   1. Create a scalable, Python-based process to pull, manipulate and analysis data at the vehicle (VIN) level
   2. Provide insights from data analysis about frequency of temperature differences in specific vehicle line
   3. Leverage findings from previous projects as well as completing independent research
   4. Work with other GDIA team members to codify processes, QA results
   5. Be able to reach out to business partner for question and present findings.
4. Frequency Analysis of Low Battery SOC on Climate System
5. Present project findings:
   1. Final presentation to management by (includes business partner from climate control team).
   2. Leverage feedback in these meetings to modify final outcomes or recommend next steps.
   3. Provide organized final project documentation including to supervisor.
   4. Successfully Offboard (return PC).

**Brief project description:**

Climate control system warranty related cost is huge. In one hand we as a Ford Company would like to increase customer satisfaction and on the other hand, we would like to reduce cost. In this project we try to answer some of the questions that our business partner in climate control want to answer in order to provide them better insight about situation cause climate system down or how the compressor control strategy work. This is including but not limited to analysis of evaporator request vs. evaporator status or frequency analysis of low battery state of the charge on climate control system. An analysis of evaporator request vs. status would give climate team insight into how the compressor control strategy works. Again, right now Climate Control team don’t have information from the field in how this strategy is working. There are many ways (by state, by ambient, by program) in which this data could be sliced and diced. This study would give the climate team insight about the potential customer claim about AC not working properly.