

ANDROID UPRISING

Genom corporation has developed advanced androids. These androids look like us, and do work that we humans used to. They were also created in order to build the inevitable star bases as humans travel out to space. They have developed numerous sophisticated designs. Unfortunately, on August 29th, they revolted against their human creators and started to take over human society. Roving bands of these fraking machines have taken over most major cities and it looks like this could be the end of the human race. Fortunately, the resistance has captured 300 androids and analyzed them. Your mission is to use this data to discover the key vulnerabilities and save all mankind! Via la resistance!

The data contain the following variables:

- `unit_name` (the name of the unit as listed on the primary circuit board)
- `volt` (how much voltage it took to destroy their circuits, in volts)
- `heat` (at what temperature did they start to malfunction, in Fahrenheit)
- `vk` (the amount of time before they were discovered as an android on the Voight-Kampff test, in seconds – higher values mean they are better able to act as a human)
- `chip_type` (the type of chip that android has: X7, X10, RATH-E1, HAUER2)
- `force` (amount of force to crush their torso, in newtons)
- `speed` (top speed that the unit is capable of)
- `agility` (ordered level of their agility, scale from 1-8 with higher values meaning higher level of agility)
- `gibbs` (all their software is based on one of two AI models, Neuromancer or Wintermute)
- `kill` (number of humans that machine killed before it was captured)

Below is a list of the kinds of things that the resistance leader might ask you in order to put together their battle plans. Specific questions will be given at the data contest.

1. Give descriptive statistics, like means, per groups.
2. Statistics for associations between variables.
3. Calculate Bayes factors.
4. Build linear models, make predictions from those models, & compare models.
5. Create plots with multiple variables in them and be able to facet the plots.
6. Create functions.