

WELCOME TO



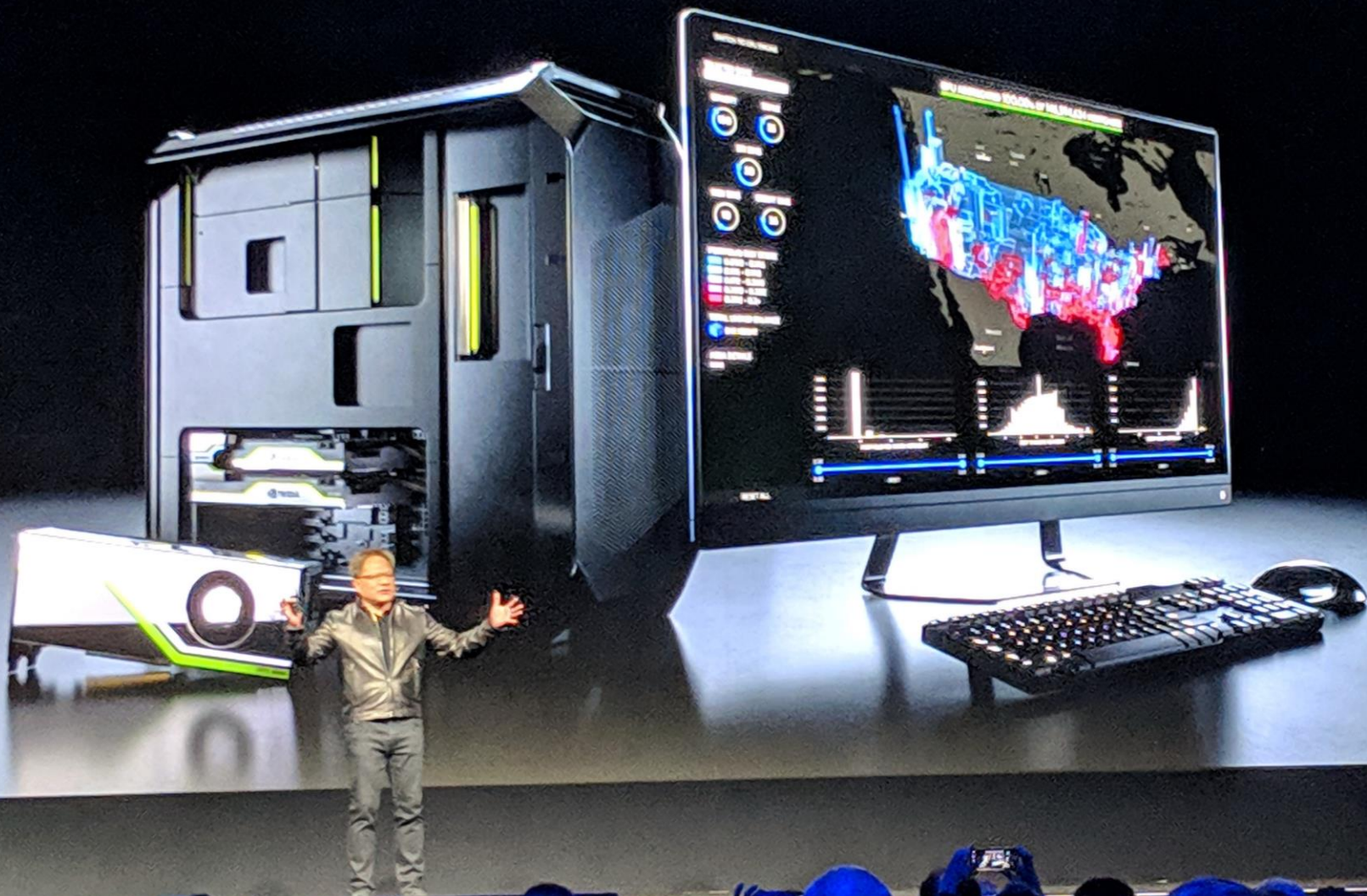
Bruce Blaho
HP Fellow & Chief Technologist, Z by HP

Jared Dame
Data Science Lead, Z by HP



A WORKSTATION FOR DATA SCIENTISTS

*GTC Keynote
Jensen Huang
March 18, 2019*



POWERED BY NVIDIA GPU AND CUDA-X AI

Dual Quadro RTX 8000 with 96 GB Memory

Pre-installed for CUDA-X Accelerated Data Science —
RAPIDS, TensorFlow, PyTorch, Caffe, Anaconda Distribution

10X Faster

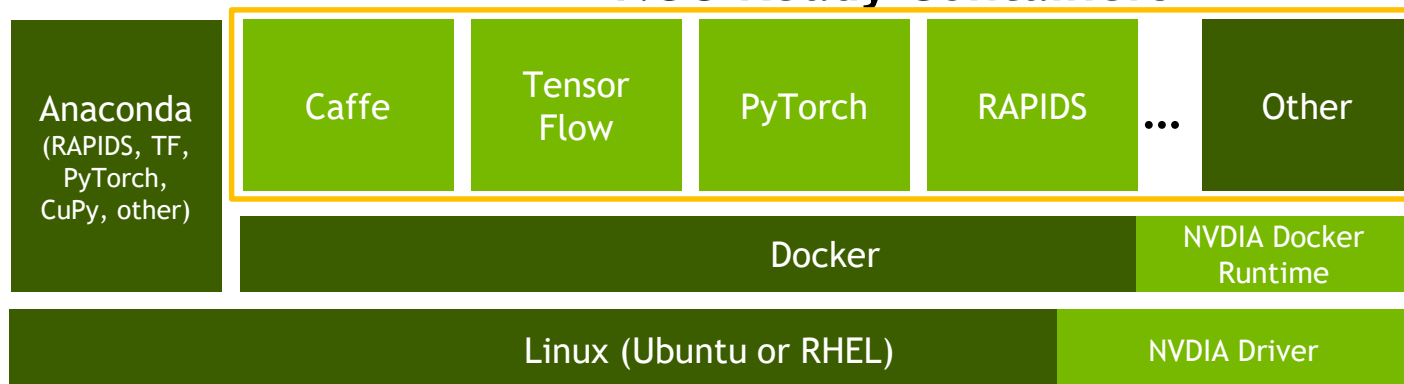
RAPIDS

GPU-Accelerated Data Analytics & Machine Learning

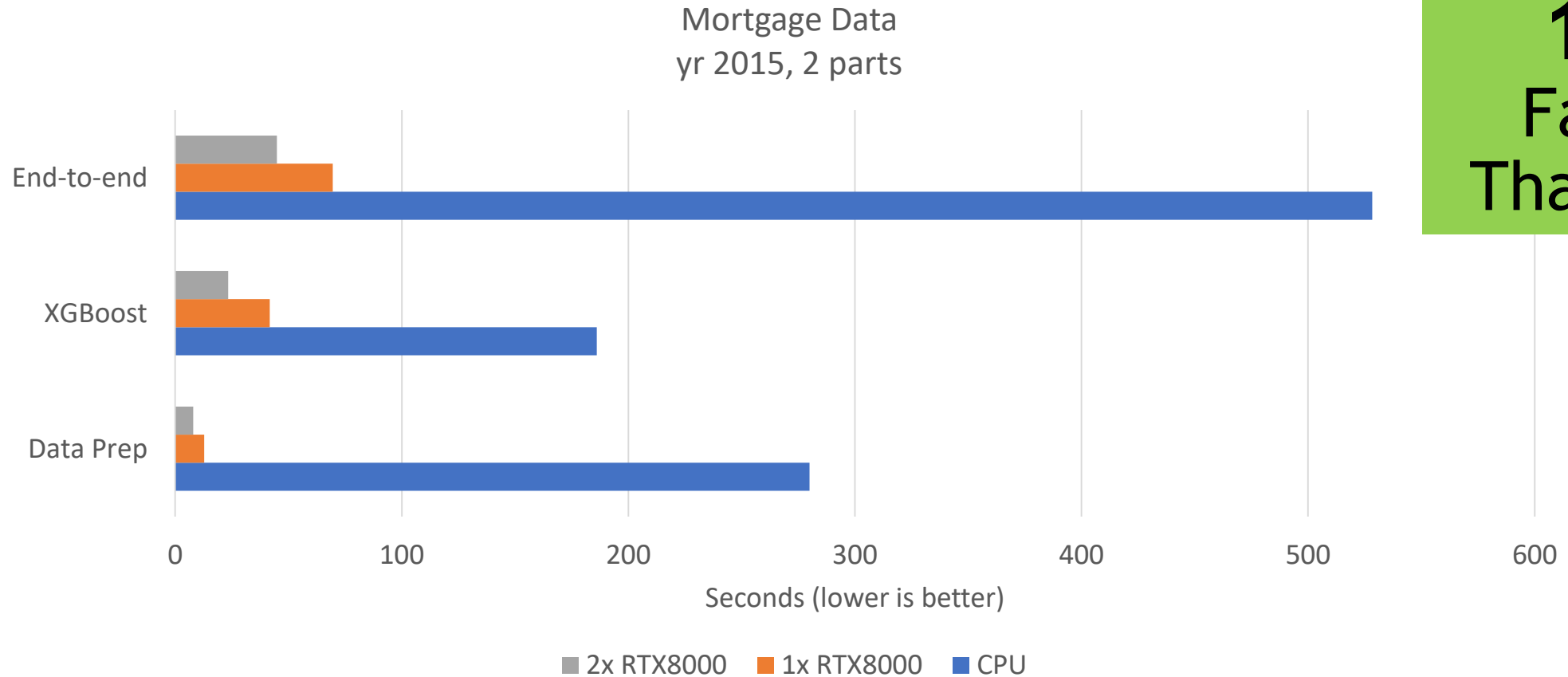
NVIDIA POWERED DATA SCIENCE WORKSTATION

NGC-Ready Containers

GPU-Accelerated
ML Development Stack



FASTER SPEEDS, REAL WORLD BENEFITS



**10X
Faster
Than CPU**

Benchmark

End-to-end time = Data Prep + Conversion + Training + Validation

CPU Configuration

CPU Gold 6140@2.30GHz 3.7GHz Turbo (Skylake)

HP ZBOOK 17

THE WORLD'S MOST POWERFUL MOBILE WORKSTATION¹¹

PERFORMANCE OF A DESKTOP.
FREEDOM OF A LAPTOP.

RAPIDS RECOMMENDATION

- NVIDIA P5200 GPU
- INTEL XEON 6C CPU
- 32-128 GB RAM
- 1TB NVMe drive (RAID 1 optional)
- 2TB NVMe data drive (optional)
- Ubuntu 18.04.02

HP Z4 G4

HP'S BEST SELLING PERFORMANCE WORKSTATION

PERFECT FOR ENGINEERING,
VISUALIZATION, AND
MACHINE LEARNING

RAPIDS RECOMMENDATION

- NVIDIA RTX 8000 GPU (48 GB)
- INTEL XEON 6C CPU
- 128-256 GB RAM
- 1TB HP Z Turbo drive
- 2TB HP Z Turbo data drive (optional)
- Ubuntu 18.04 or RHEL 7.5
- 1000 Watt Power Supply

XEON® + THE NEW Intel® Core™ i9
PROCESSORS





HP Z8 DESKTOP WORKSTATION

THE WORLD'S MOST POWERFUL WORKSTATION¹⁴

IDEAL FOR RUNNING COMPLEX
SIMULATION, ML AND PROCESSING
HUGE AMOUNTS OF DATA.

RAPIDS RECOMMENDATION

- DUAL NVIDIA RTX 8000 GPU + NVLink (96 GB)
- DUAL INTEL XEON 8C CPU
- 192-512 GB RAM
- 1TB HP Z Turbo drive
- 2TB HP Z Turbo data drive (optional)
- Ubuntu 18.04 or RHEL 7.5
- 1500 Watt Power Supply



OUR CUSTOMERS ARE
REINVENTING OUR WORLD



FINANCE



HEALTHCARE



POWER USERS



BIOSCIENCE



M&E



OEM

HP is reinventing WORKSTATIONS to transform WORKDAYS around the world.



PRODUCT DEV.



ARCHITECTURE



GAS & OIL



EDUCATION



MANUFACTURING

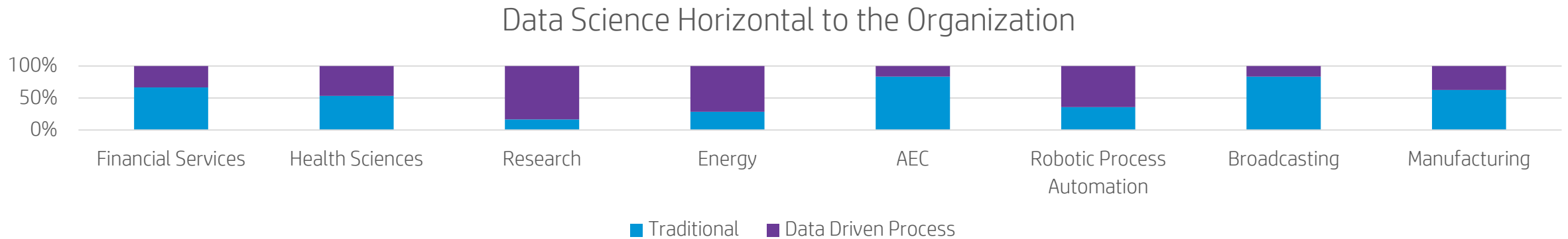


AEROSPACE

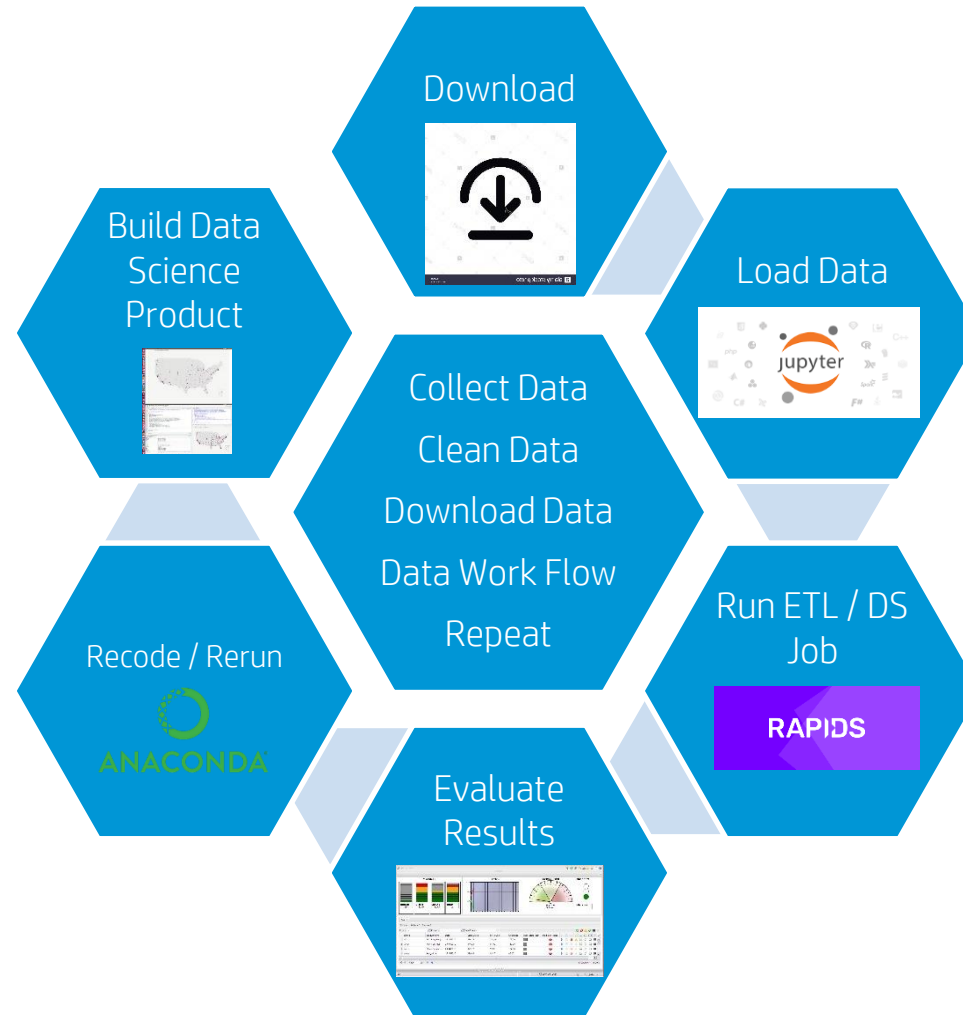


Why is Data Science Growing so fast?

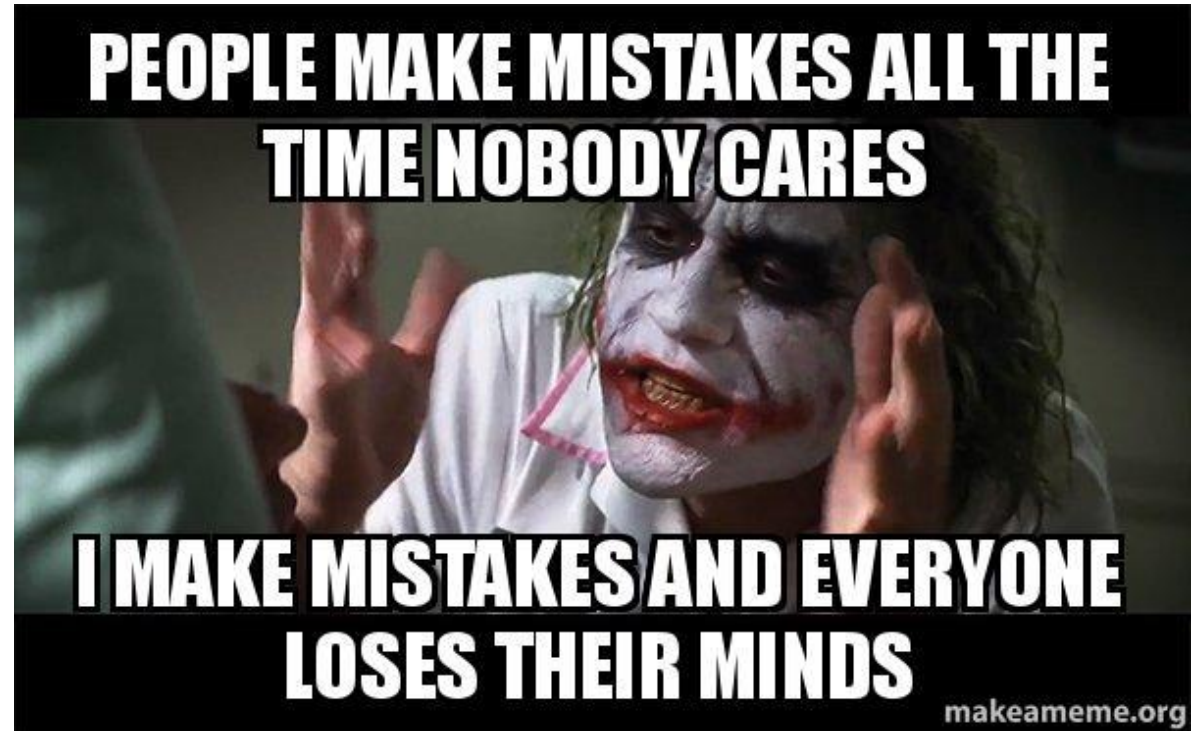
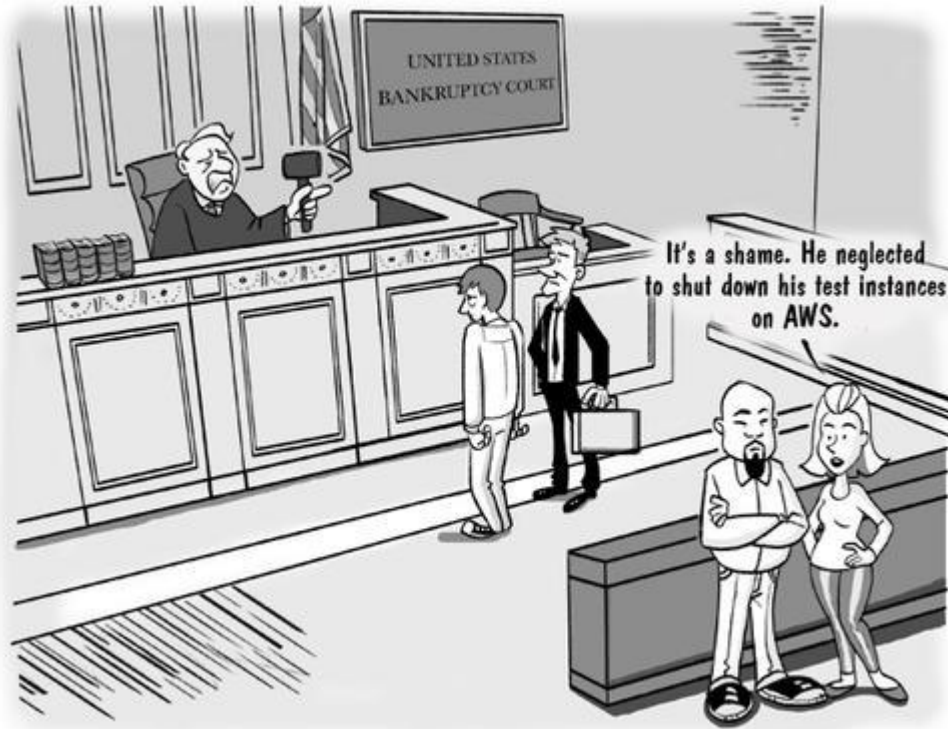
- There is a shortage of talent
- Data is hard!
 - Collecting
 - Storing
 - Filtering
 - Accessing
- Vertical Segmentation does not apply to data science ... its Horizontal



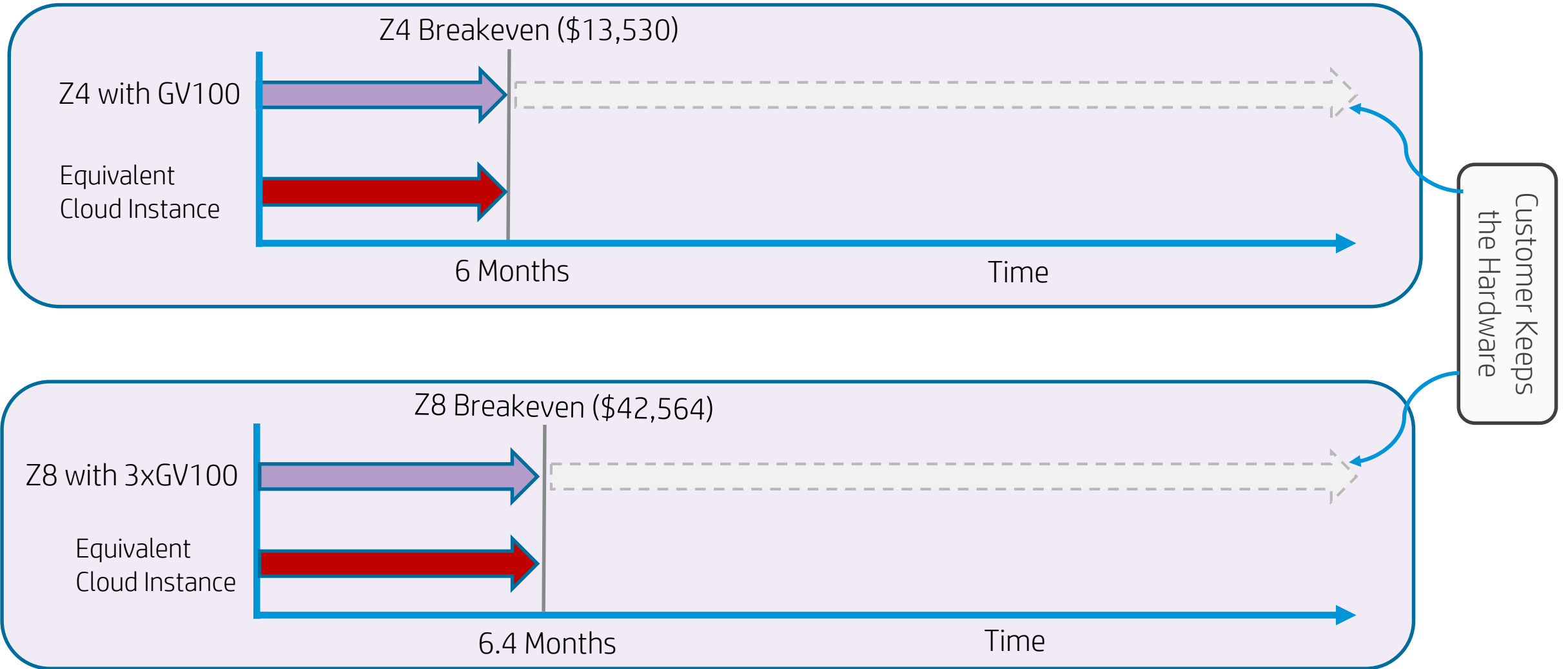
In a perfect world for a Data Scientist

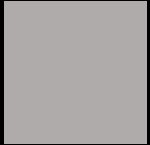


Data Science is a progression of mistakes that eventually lead to a discovery or insight.



COST COMPARISON





GIVES YOU AN EDGE



Skills of a Data Scientist

- Skills Needed
 - Personality
 - Needs to be able to work with many different personalities and positions within an organization
 - Technical Skills
 - Science
 - Statistics
 - Mathematics
 - Data Mining
 - Programming
 - Machine Learning
 - Architecture (Data, Software)
 - Hacking!
 - Domain Expertise
 - Usually the best data scientist come from a specific field and lend their knowledge to the pursuit of better understanding how something works based on the data.

Toolkits used by the Data Scientist

- Python, R, Java, C++
- SPSS, Matlab, SAS
- NVIDIA Rapids
- SQL, RDBMS, DW, OLAP
- ETL, Webscrapers, Flume, Sqoop
- Hadoop, HDFS, MapReduce
- NoSQL, MongoDB, Couchbase Cassandra
- Alteryx, Pega Systems, “All in one platforms”
- MS-Excel the most used data science tool available
- Much Much More!