

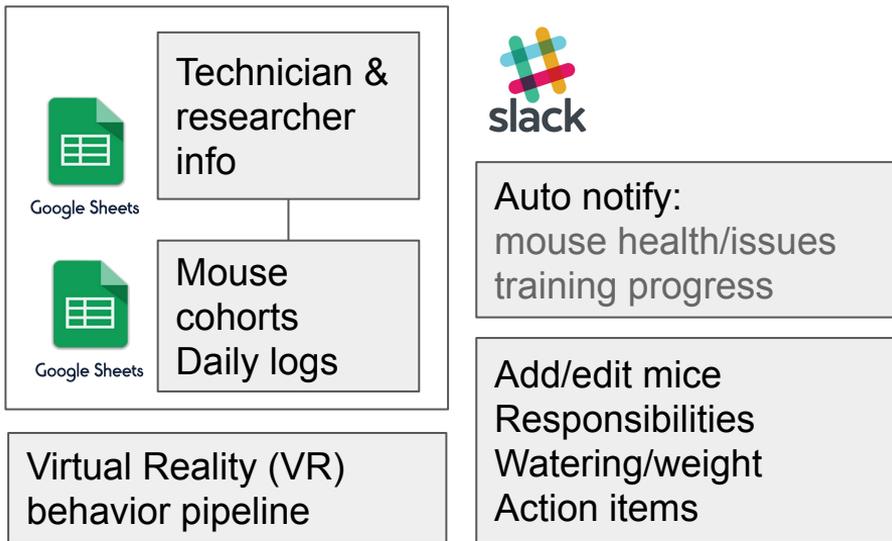


# Data Science Showcase

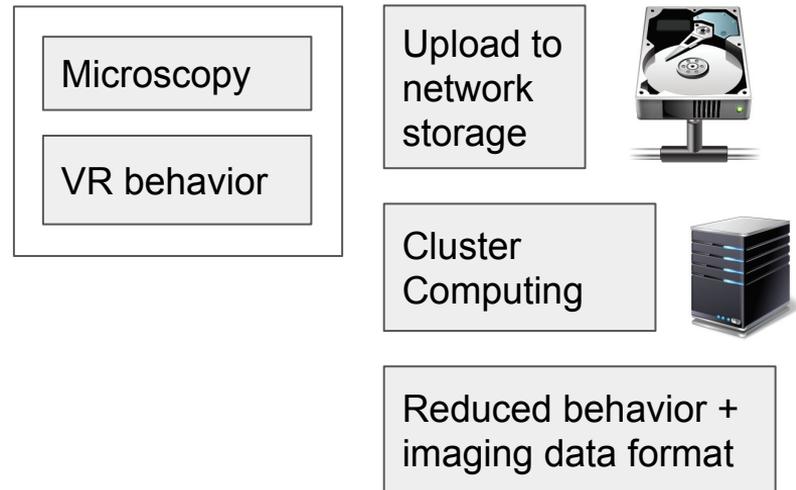
Shan Shen,  
DataJoint Neuro

# Overall Goals

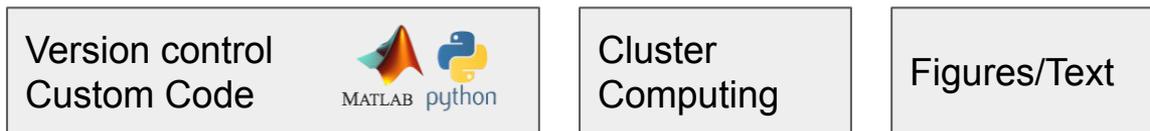
## Animal training and caretaking



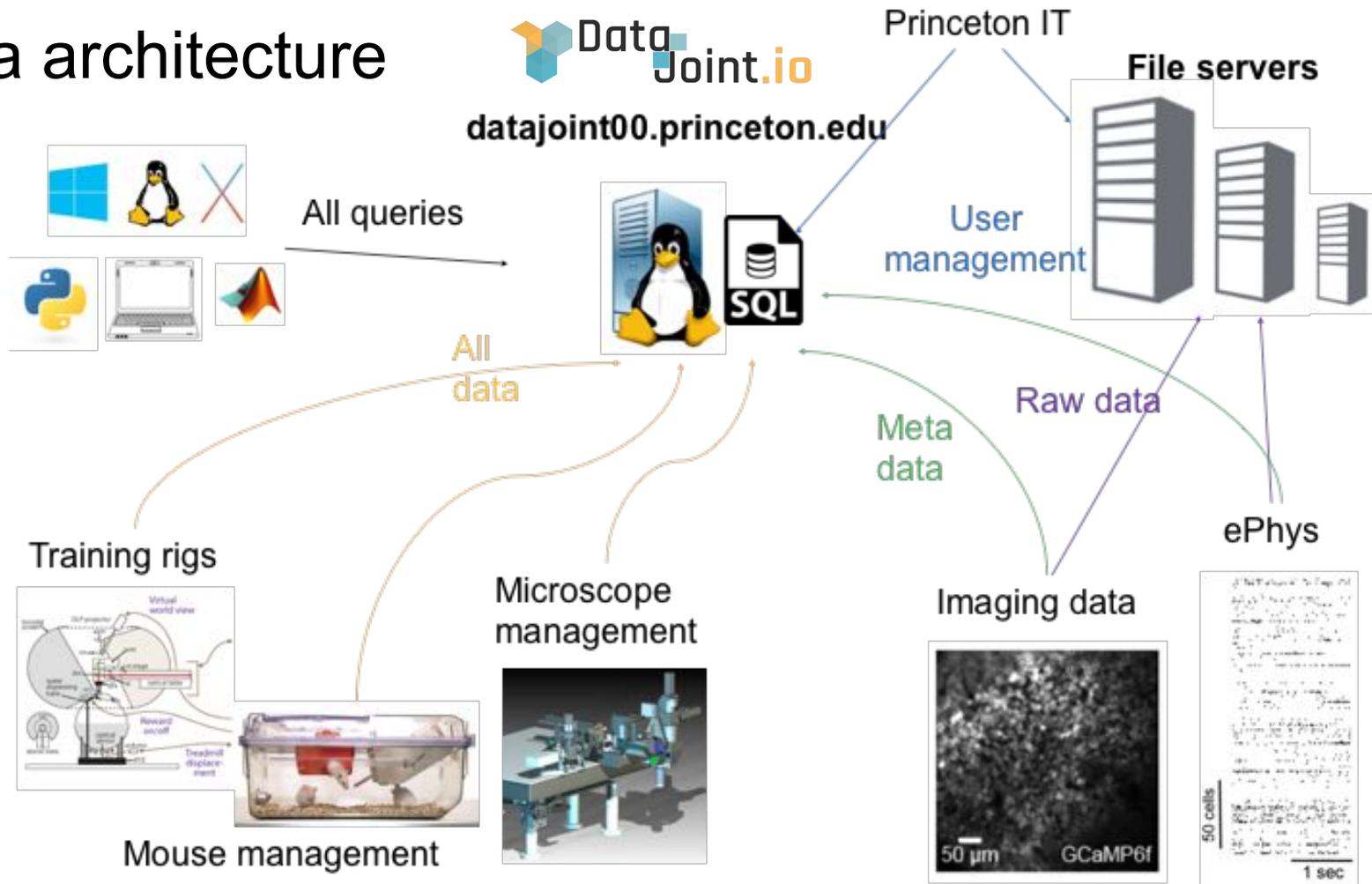
## Microscopy and Behavior



## Pipeline for scientific data analysis



# Data architecture



# GUI for animal husbandry and behavior training

BRAIN Mice Database

Technician:

Connect Electronic Scale | Check In/Out | Ready now

Owner: sakooy 0/0 | lucas 0/19 | edward 0/8 | ben 0/0 | mioffe 0/0

Add cage

LP1: **VG43** Train 0/1.2 mL 1.2 mL | **VG44** Train 0/1.2 mL 1.2 mL | **VG45** Train 0/1.2 mL 1.2 mL | **VG46** Train 0/1 mL 1 mL | **VG47** Train 0/1 mL 1 mL

LP2: **vg32** Train 0/1.3 mL 1.3 mL | **vg33** Train 0/1.3 mL 1.3 mL | **vg34** Train 11:09 (89.1%) 1.8/1.3 mL 0

LP3: **GP1** Water 0/1.2 mL 1.2 mL | **GP5** Water 0/1.2 mL 1.2 mL

LP4: **GP3** Train 0/1 mL 1 mL | **GP4** Water 0/1 mL 1 mL

LP5: **vg36** Train 0/1.2 mL 1.2 mL | **vg37** Train 0/1.2 mL 1.2 mL | **vg38** Water 0/1 mL 1 mL

LP1 | Edit VG43

Effective: 4/9/2019

Where am I: vivarium | Protocol: 1910 | Sex: Female

D.O.B.: 10/11/18 | Genotype: VGAT-ChR2-EYFP

Initial weight: 27.7 | Water/day (mL): 1.2

Action items: + -

Status: FLAG Missing | FLAG Dead

Tech duties: Sun Train | Mon Train | Tue Train | **Wed Train** | Thu Train | Fri Train | Sat Train

Daily logs: 5/15/2019

Earned water (mL): 0 | Supplemental (mL): 1.2

Water received (mL):

Weight (g): Weigh

Normal behavior: Yes | BCS: 3 | Activity: 0 | Posture/grooming: 0 | Eating/drinking: 0 | Skin turgor: 0

Who weighed: | Weigh time: | Weigh location: | Training start: | Training end: | Rig name: | Performance (%): | Main Maze ID: | Protocol: | Action items: | Comments:

# Changing the backend to DataJoint improved pushing and fetching performance

