Welcome to "Gateway Week"
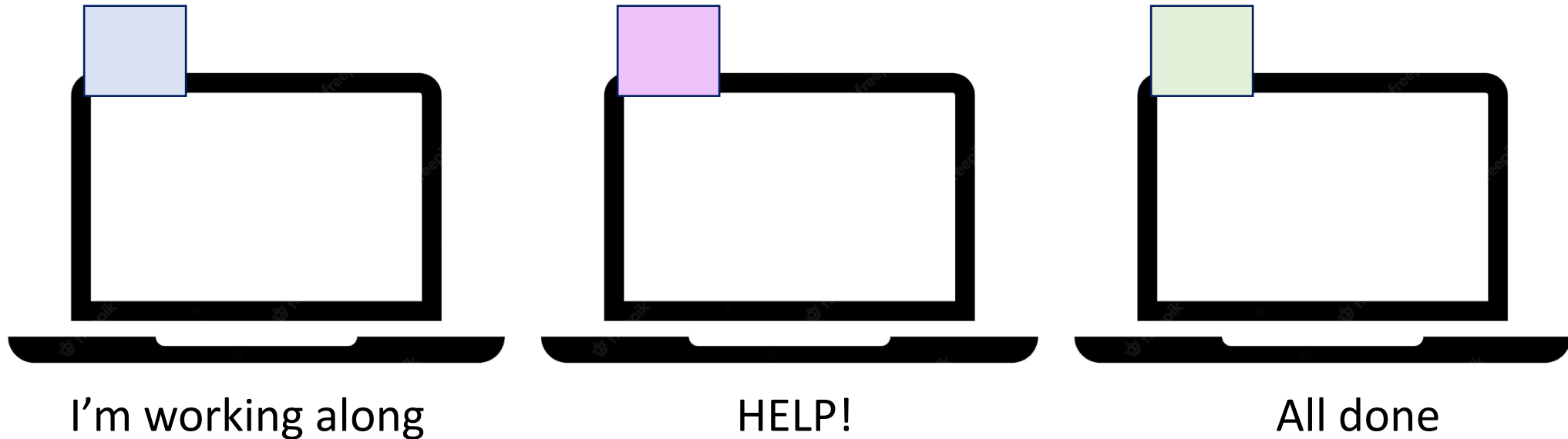## Bridging the Bench-Machine Learning Gap

Dr. Emily A. Beck

Dr. Jake Searcy

What to expect from Gateway Week

We are assuming **no coding experience** so don't stress! It isn't a race to finish.

We will be using a color-coded post-it system during activities

I'm working along   HELP!   All done

Feel free to help each other, but…

Pre-Workshop Survey

Welcome to the pilot!

We sent out a **pre-workshop survey**

If you have not completed your survey please use some time during our first break to finish.

Also, please make sure you have provided us with a **reliable contact email**

We will be sending you a copy of your answers 6 months after completion of the workshop series and will also be contacting you for a long-term follow-up survey.

Outline for Monday

Morning Session 10:00-12:00pm

Introduction to the Workshop - 10:00am-10:15am [Emily]

Group Introductions - 10:15am-10:30am [All]

What is Machine Learning? - 10:30am-11:15am [Jake]

BREAK - 11:15am-11:30am

Computational Literacy - 11:30am-11:45am [Emily]

Setup and Software Installation - 11:45am-12:00pm [Emily and Jake]

Lunch 12:00-1:30pm

Afternoon 1:30-4:00pm

Good Data Practices - 1:30pm-2:20pm [Jake]

BREAK - 2:20pm-2:30pm

Terminal Lecture 1: Getting comfortable - 2:30pm-3:00pm [Emily]

BREAK - 3:00pm-3:10pm

Terminal Lecture 2: Bash scripting - 3:10pm-3:40pm [Emily]

Discussion - 3:40pm-4:00pm [All]

Homework-Linux!

Outline for Tuesday

Morning Session 10:30-12:00pm
Open Office Hours - 10:30am-12:00pm [Emily and Jake]

Lunch 12:00-1:30pm

Afternoon 2:00-4:00pm
Open Office Hours - 1:30-pm-2:00pm [Emily and Jake]

Guest Lecture - **Bill Cresko** *"The good, the bad and the ugly of data visualization"* 2:00pm-3:00pm

Open Office Hours and Answer Key - 3:00pm-4:00pm [Emily and Jake]

Outline for Wednesday

Morning Session 10:00-12:00pm

Terminal Lecture 3: Programming Power-Up - 10:00am-10:30am [Emily]

BREAK - 10:30am-10:45am

Introduction to R - 10:45am-12:00pm [Emily]

Lunch 12:00-1:30pm

Afternoon 1:30-4:00pm

Your first ML algorithm/ Classification - 1:30pm-3:00pm [Jake]

Datasets for ML Concepts pt 1 - 3:00pm-3:30pm [Jake]

Discussion - 3:30pm-4:00pm

Homework-Penguin ML!

Outline for Thursday

Morning Session 10:30-12:00pm
Open Office Hours - 10:30am-11:00am [Emily and Jake]
Guest Lecture - **Lillian Aoiki** *"R Markdown: USE IT"* 11:00am-12:00pm

Lunch 12:00-1:30pm

Afternoon 1:30-3:30pm
Guest Lecture-**Lillian Aoiki** *"Marine disease detection and surveillance with in situ and machine learning methods"* 1:00pm-2:00pm
Open Office Hours - 2:00pm-3:30pm [Emily and Jake]

Outline for Friday

Morning Session 10:00-12:00pm

Unsupervised Learning ML Concepts pt 2 - 10:00am-11:00am [Jake]

BREAK - 11:00am-11:15am

Clustering example - 11:15am-12:00pm [Jake]

Lunch 12:00-1:30pm

Afternoon 1:30-4:00pm

ML Algorithms - 1:30pm-2:30pm [Jake]

BREAK - 2:30pm-2:45pm

Genetics for ML Concepts - 2:45pm-3:00pm [Emily]

Images for ML Concepts - 3:00pm-3:15pm [Emily]

Discussion - 3:15pm-4:00pm