Ever wondered why horses have difficulty recovering from broken legs? Because they don’t have hands to use crutches! Horses weigh so much that they can only lay down for a few hours at a time, and standing on three legs for a long period of time causes other issues. A leading cause of fatality in sport horses (think jumpers and race horses) is fracture to a leg bone. Few of these fractures can be fixed. Understanding how bone grows and strengthens can help us better understand the fracture of such bones. My research looks at a specific lower leg bone, the proximal phalanx (the colorful bone), and how this bone grows during the first year of a horse’s life. Specifically, I am investigating whether the bone changes how it handles loads during growth. To do this, Illini Cyclone (the horse pictured) undergoes CT scans every few months. We also collect information on how he walks, so we can model the bone correctly (markers on back leg). The ultimate goal of this project is to propose a training strategy to horse trainers that lowers the likelihood of proximal phalanx fracture, saving as many horses as possible from an untimely demise.