Intro: Setup shots of the exterior of Harbor Walk, the bridge, us waving, etc.

Introduce ourselves: I’m Kate Mizgireva

I’m Katie Balcewicz

And I’m Zach Kidd

And we’re all Senior Data Science majors here at the College of Charleston

Kate: In January, we met with our contact, Ethan, from N3twork, a mobile game development company. Ethan pitched us the project of developing Cayce, a trend-spotter for competing mobile video games. Cayce was named after the main character in the book “Pattern Recognition” by William Gibson *(hold up book)* who has an innate ability to spot patterns and trends. Our product would collect publicly available data on the top grossing apps in the apple and android app stores in seven “soft launch” countries. These are countries where developers test launch their apps before releasing them to wider markets. Then, using machine learning algorithms, detect trending apps. If we can detect trending apps in the soft launch countries, we can hopefully detect big hits before they are released worldwide. Cayce would then send a slack message to the N3twork team about the top trending app in each store every day.

Katie: Our first task was to scrape the data from the Apple and Android app stores. We used two open source scrapers found on Github to download the top 500 free, grossing, and trending apps daily using Node JS and bash. We then transform the data into json files and upload the data into MongoDB on our Google Cloud Server. *(show logos as they are said)*

Zach: Once we had several days of data, we began detecting outlier apps. Using Python, PyMongo, Pandas, and Scikit-Learn, we queried the past five days of data from our MongoDB and transformed our data frame to compute the change in rank between each of the five days. We then tested four outlier detection algorithms: Robust Covariance, One Class Support Vector Machine, Isolation Forest, and Local Outlier Factor. *(List in text next to person)* We found that Isolation Forest worked best for our purposes. We automated our script so that it would tell us what apps were trending every day.

Kate: Our final task was to code a Slack bot to send messages to the network team about which apps are trending each day. *(Show slack bot messages)*

Exterior: final shots of us hanging out