

# RYAN GESS

THINKER | PROBLEM SOLVER | LEADER

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## EDUCATION

### Carnegie Mellon University

Pittsburgh, PA | May 2022

B.S. Electrical and Computer Engineering  
Minor in Machine Learning

## PROJECTS

### Stock Sentiment

Carnegie Mellon University | Fall 2018

Built an app using Python and BeautifulSoup to scrape news articles and analyze public sentiment about companies to gain insight for stock price projections.

## ACTIVITIES

### CMU Sports Analytics Club

Pittsburgh, PA | Fall 2018 – Present

Analyze player values and predict game outcomes using R.

### Hack 112

Pittsburgh, PA | Fall 2018

Built interactive game to teach sign language using Python and OpenCV during 24-hour hack-a-thon.

## LEADERSHIP

### Carnegie Mellon Booth, Project Manager

Pittsburgh, PA | Spring 2019

Coordinated a team of fifteen people to create an immersive experience in a room to bring a scene of the Disney movie Coco to life. Delegate tasks for set design and music production.

### Hack Club, Co-founder

State College Area High School | 2017-2018

Organized and lead weekly meetings to teach coding workshops. Presented demos to inspire and teach new programmers and experienced coders.

## EXPERIENCE

### R & D Engineering and Machine Learning Intern – ARL Penn State

Penn State | Summer 2019

- Engineered a big data pipeline to enable analytics on over 24 million aircraft positions per day.
- Conducted machine learning research to predict relevant features of aircraft and maintain state of aircraft (on ground, in air, etc.)
- Implemented algorithms to flag and clean anomalous data.
- Created geospatial visuals using D3.js to inform analysis and methods such as random forest regression and density-based clustering.

### Software Engineering Intern – ARL Penn State

Penn State | Summer 2018

- Designed and implemented a Python script to setup a development environment for new interns.
- Tested a customizable interactive geospatial visual display web app with Selenium web browser automation and fixed bugs that were discovered.

### Software Engineering Intern – Minitab Inc.

State College, PA | Summer 2017

- Worked with a team to create and test Mac wrapper functions written in Swift that wrap functions in the C++ Minitab Windows version.
- Wrote unit test classes in Swift for Minitab Express Mac software.

## SKILLS

### Languages

Python – Java – Swift – C/C++

JavaScript/HTML5/CSS

SQL – HiveQL – PySpark

### Software

Folium – D3.js – BeautifulSoup

Hadoop File System

JUnit – Selenium Grid – iOS & macOS testing

### Development Environments/Source Control

Xcode – Eclipse – Microsoft Visual Studio Code

PyCharm – Git – Ant – VirtualBox

Scrum/Agile Project Management

