

# Richard Zhao

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🌐 <https://richardzhao2.github.io/>

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## Education

Aug 2016 | **BS in Statistics & Machine Learning, Minor in Computer Science,**  
May 2020 *Carnegie Mellon University, GPA: 3.33/4.0, Pittsburgh, PA.*

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## Work Experience

- May 2018 – **Intern, ASTM International**, Conshohocken, PA.
- Present
- Designed, developed, and improved UI/UX for in-house statistical reporting and proficiency testing software.
  - Extracted, analyzed, and visualized data from program-participant test samples to generate statistics for scientific reports.
  - Performed structured and context-driven (formal and ad-hoc) functional software testing
  - Produced documentation to support testing activities, including test scripts/matrices and test data
- May 2017 – **Instructor/Curriculum Developer, Digital Media Academy**, Cambridge, MA.
- Feb 2018
- Lead instructor for iOS development, Game Programming, and Advanced Java
  - Developed and revamped course curriculum for advanced Java course
- May 2014 – **Researcher, Southern California Marine Institute**, Terminal Island, CA.
- April 2016
- Modeled coastal environments for experiments regarding effects of fertilizer runoff
  - Worked with marine biologists to investigate short term growth effects of fertilizer and nitrogen pollution on certain species of cyanobacteria

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## Skills

Languages Python, Java, C, C#, Javascript, HTML/CSS, SQL, Git, Unix

Libraries Pygame, NumPy, JUnit, Swing, React.js, Bootstrap, LibGDX

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## Projects

**Engee**, *Bootstrap, Flask, Node.js, Pandas, Sklearn.*

Sandbox for the machine learning pipeline, enabling students to learn about machine learning and professionals to use different models to analyze data sets without technical knowledge.  
<https://github.com/calvinhklui/engee>

**EPM Dashboard**, *Flask, NumPy, Sklearn, Node.js, d3.js, SASS, React.js.*

Web app that displays a revamped basketball box score and introduces a new statistic that uses live player tracking via SportVU data and machine learning to measure basketball IQ.  
<https://github.com/richardzhao2/EPM-Dashboard>

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## Relevant Coursework

*Data Structures and Algorithms / Mathematical Software / Fundamentals of Computer Science / Discrete Mathematics / Statistical Methods and Data Science / Software Construction / Probability Theory / Human AI Interaction / Functional Programming / Statistical Visualization / Artificial Intelligence / Coding for Good*

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## Awards

**Best Design**, *September 2017.*

Recognized for creating the best software design and UI  
HackCMU