

Richard Zhao

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📄 <https://richardzhao2.github.io/>

Education

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

Work Experience

- May 2018 – **Intern, ASTM International**, Conshohocken, PA.
Present
 - Designed, developed, and improved UI/UX with React.js and Material design for in-house statistical reporting and proficiency testing software.
 - Developed software to parse databases, classify thousands of users, and automate database maintenance and integrity verification process with cosine similarity and hierarchical clustering.
 - Extracted, analyzed, and visualized data from program-participant test samples to generate statistics for scientific reports.
- 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

Skills

Languages Python, Java, C, C#, Javascript, HTML/CSS, SQL, R, MATLAB
Technical Pygame, NumPy, JUnit, Swing, React.js, Bootstrap, LibGDX, JIRA, Git, Unix

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>

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

Awards

Best Design, September 2017.

Recognized for creating the best software design and UI
HackCMU