Richard Zhao

📞 *562-916-5790*
✉ *rzhao2@andrew.cmu.edu*
🖥 *https://richardzhao2.github.io/*

Education

Aug 2016 |
May 2020

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

Work Experience

May 2018 –
Present

Intern, *ASTM International*, Conshohocken, PA.
- 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 algorithms.
- Extracted, analyzed, and visualized data from program-participant test samples to generate statistics for scientific reports.

May 2017 –
Feb 2018

Instructor/Curriculum Developer, *Digital Media Academy*, Cambridge, MA.
- Lead instructor for iOS development, Game Programming, and Advanced Java
- Developed and revamped course curriculum for advanced Java course

May 2014 –
April 2016

Researcher, *Southern California Marine Institute*, Terminal Island, CA.
- 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, R, MATLAB

Technical   Pygame, NumPy, JUnit, Swing, React.js, Bootstrap, LibGDX, JIRA, Git, Unix

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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

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