

# Richard Zhao

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EDUCATION	<b>Carnegie Mellon University</b> , <i>BS in Mathematics, Minor in Computer Science</i> May 2020 Pittsburgh, PA GPA: 3.2/4.00
EXPERIENCE	<b>Digital Media Academy</b> , <i>Instructor/Course Developer</i> May 2017 — Present Cambridge, MA <ul style="list-style-type: none"><li>• Lead instructor for iOS development, Game Programming, and Advanced Java</li><li>• Develop and revamp course curriculum for advanced Java course</li></ul> <b>Southern California Academy of Sciences</b> , <i>Researcher</i> May 2014 — April 2016 Long Beach, CA <ul style="list-style-type: none"><li>• Helped research effects of fertilizer runoff on various species of cyanobacteria</li><li>• Cultivated multiple generations of cyanobacteria for testing purposes</li></ul> <b>Southern California Marine Institute</b> , <i>Researcher</i> May 2014 — April 2016 Terminal Island, CA <ul style="list-style-type: none"><li>• Modeled coastal environments to perform experiments regarding effects of fertilizer runoff</li><li>• Created real life model of typical coastal sewer dump</li><li>• Worked with marine biologists to investigate short term growth effects of fertilizer and nitrogen pollution on certain species of cyanobacteria.</li></ul>
LEADERSHIP	<b>WHS Vex Robotics</b> , <i>Head Programmer</i> September 2013 — June 2016 Cerritos, CA <ul style="list-style-type: none"><li>• Led team of programmers and taught them RobotC from scratch</li><li>• Coordinated lectures to teach local elementary schools and middle schools about robotics.</li></ul>
PROJECTS	<b>EnGee</b> , <i>Bootstrap, Flask, Pandas, Sklearn, Node.js</i> 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. <a href="https://github.com/richardzhao2/engee">https://github.com/richardzhao2/engee</a> <b>Schedulize</b> , <i>Python, PyGame, Pandas, Sklearn</i> An app that uses a student's past performance in classes and machine learning to recommend future courses. Won HackCMU's best design award <a href="https://devpost.com/software/schedulize">https://devpost.com/software/schedulize</a> <b>EPM Dashboard</b> , <i>Flask, NumPy, Pandas, Jupyter, Sklearn, Node.js, d3.js, SASS, React.js</i> 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. <a href="https://github.com/richardzhao2/EPM-Dashboard">https://github.com/richardzhao2/EPM-Dashboard</a>
SKILLS	<b>Languages/Technical:</b> Python, Java, C, C#, Javascript, HTML/CSS, MATLAB, Git, Unix <b>Libraries:</b> Pygame, NumPy, Pandas, JUnit, Swing, React.js
Relevant Coursework	<i>Concepts of Mathematics / Data Structures and Algorithms / Matrix Algebra / Mathematical Software / Fundamentals of Programming and Computer Science / Discrete Mathematics / Statistical Methods and Data Science / Multivariate Analysis / Software Construction</i>
Awards	<b>Best Design at HackCMU</b> , <i>Pittsburgh, PA</i> September 2017 Created schedule recommender application for students