RICHARD ZHAO

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EDUCATION

Carnegie Mellon University
GPA: 3.52/4.0 | May 2021
B.S. in Statistics
minor in computer science
concentration in human-computer
interaction

RELEVANT COURSEWORK

COMPUTER SCIENCE
Machine Learning
Algorithms and Data Structures
Fundamentals of Programming
Software Construction
Web Prototyping
Imperative Programming
Interaction Design
Data Mining
Data Visualization (d3.js/Tableau)

STATISTICS / MATH
Probability Theory
Discrete Math
Linear Algebra
Statistical Inference
Statistical Visualization (ggplot2)
Modern Regression
Introduction to Data Science
Statistical Computing
Multivariable Calculus
Statistical Methods

SKILLS

LANGUAGES
Python, Java, Javascript, C (familiar),
SQL, R

TOOLS & FRAMEWORKS
Git, React, Vue, d3.js, Django,
HTML/CSS, ggplot, openCV, numpy

DESIGN & PRODUCTION
Figma, InVision, Adobe XD, Sketch

EXPERIENCE – INDUSTRY

Stealth Startup
software engineer intern   new york city, ny
june 2020 - present
- Working on a full-stack (Vue / Rails) greenfield project at an early-stage legal tech startup involving complex visualizations of hierarchical and relational data.
- Designing and implementing various features to reduce user cognitive load.

Capital One
software engineer intern   mclean, va
june – aug 2019
- Developed data dashboard with React and d3.js to visualize 100+ million customer records and to evaluate overall data pipeline health.
- Implemented real time tracking and logging of customer information files from different lines of businesses.
- Built RESTful API with Spring Boot to abstract querying from Spark log files and core customer databases.

ASTM International
technical intern   conshohocken, pa
may – aug 2018
- Designed and improved UI for in-house statistical reporting software with Bootstrap and Material design.
- Developed software to parse databases and classify thousands of users with hierarchical clustering algorithms.
- Extracted and cleansed data for hundreds of client samples to construct a pipeline for data analysis and visualization with external R scripts.

Digital Media Academy
curriculum developer / instructor   cambridge, ma
may – aug 2017
- Lead instructor for iOS development, Game Design, and Advanced Java.
- Led team of 3 to devise and revamp curriculum for advanced Java Course.

ACTIVITIES

Computing for Good
student developer
- Collaborated with local hospitals and UPMC to create applications to detect abnormal body behavior through body-worn sensors.
- Developed software to recognize atypical changes in human position and behavior in crowds with computer vision and time series anomaly detection.

PROJECTS

Schedulize | python, pandas, sci-kit learn, pygame
- Recommender system for course suggestions based on a student's academic record. Awarded **Best Design Hack Winner** at HackCMU.