JUSTIN ZHANG

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EDUCATION

Brown University   Providence, RI; *Sept. 2016 - anticipated May 2020*
- Anticipated Concentration: Computer Science, Sc.B; cumulative GPA: 3.8, major GPA: 4.0
- *Coursework*: Systems, Software Engineering, Machine Learning, Theory of Computation, Linear Algebra
- *Currently Taking*: Algorithms, AI, Programming Languages

North Carolina School of Science and Mathematics   Durham, NC; *August. 2014 - June 2016*
- ACT: 36, SAT: 2350
- *Coursework*: Differential Equations, Multivariate Calculus, AP Physics C

WORK EXPERIENCE

Brown University CS Department, *Teaching Assistant*   Providence, RI; *Aug. 2017 - Present*
- Head TA for CS4 (Scientific Computing), Undergraduate TA for CS19 (Acclerated Intro) and CS1010 (Theory of Computation)
- Interviewed, selected, and managed a teaching staff of 11 students; led a TA camp for course development, modifying test suites, lab handouts, and assignments.
- Managed course's UNIX directory and grading system; regulated course's essential bash grading scripts.
- Wrote Python script to parse autograded submissions; wrote Google Script to generate grade reports from data stored in Google Sheets.

Leidos, *Software Engineering Intern*   Arlington, VA; *Summer 2018*
- Built NetLogo model with a "survival of the fittest" machine learning algorithm; capable of predicting optimal movements for refugees towards a safe haven.
- Visualized network of scientists on a graph with NetworkX; clustered and classified scientists by similarity with scikit-learn; implemented Dijkstra's and Conditional Random Walk algorithms.
- Storyboarded and created animation of D3P (DOMEX Data Discovery Platform) Project using D3.js.

Brown Sports Analytics Club, *Webmaster*   Providence, RI; *August 2017 – December 2017*
- Scrapped data from baseball reference sites with Python and BeautifulSoup to answer "Should Batters Swing at 3-0 Count?"; used Rstudio and ggplot2 to conduct statistical analysis and visualize results.
- Lead developer for Brown Sports Analytics website; designed and formatted with Wordpress; continually updated with new group projects and articles.
- Link: sportsanalyticsgisp.wordpress.com

North Carolina A&T University, *Student Researcher*   Greensboro, NC; *Summer 2017*
- Assembled client-server application with Angular and Node.js; capable of using biometric verification (picture of user's face) for login.
- Worked on Java program using local binary patterns to compare facial images and determine similarity.

PROJECTS

Basketball Manager Game   *Summer 2018*
- Created web game simulating a college basketball team's season; designed user interface with React and HTML/CSS; implemented server side with Node.js and Express.
- Implemented game logic with Javascript; handled login features with PostgreSQL.
- Link: bball-manager.herokuapp.com

Thirteen Card Game   *May 2018*
- Developed web-based version of Thirteen, a Vietnamese card game; backend game logic programmed with Java and Spark, front end designed with CSS.
- Complete with tutorial, single player, online match-making, custom lobbies, custom profiles, and chat-rooms.
- Link: 13-cards.com

NBA Clutchness Web Application   *December 2017*
- Scrapped player statistics in end-of-game situations from basketball reference sites with Python and uploaded data to SQL Database.
- Constructed interactive user interface with Bootstrap and Javascript, used PHP to take user input, query relevant stats from database, and dynamically display metrics.

SKILLS

Technical: Python, Java, Javascript, HTML, CSS, React, MATLAB, Node.js, Express, PHP, Unity, Photoshop