Richard Guo

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EDUCATION

CARNEGIE MELLON UNIVERSITY
BS in Computer Science
Minors in Math and Software Engineering
Dec 2021 | Pittsburgh, PA
School of Computer Science
Dean's List
GPA: 3.89 / 4.00

PLANO WEST SENIOR HIGH
Grad. June 2018 | Plano, TX
Rank 1 of 1397. SAT: 1600

LINKS

Website:// **richardg999.github.io**
Github:// **richardg999**
LinkedIn:// **rwguo**

COURSEWORK

- 17-214 Object-oriented design and concurrency
- 15-251 Theoretical Computer Science
- 15-210 Parallel and sequential algorithms
- 16-385 Computer Vision
- 15-122 Data Structures in C
- 15-150 Functional Programming
- 15-151 Discrete Math with proofs
- 27-241 Matrices and Linear Transformations

SKILLS

LANGUAGES
(Ordered by proficiency)
Java • JavaScript • Python • CSS
Ruby • HTML5 • C • Bash • C++
SQL • MATLAB • TypeScript • C#

FRAMEWORKS/TOOLS
Git • Linux • NodeJS • Firebase
Flask • ReactJS • jQuery • SocketIO
Android Studio • Windows Server
CreateJS • Unity

HACKATHONS
HackUTD 2018, EarthXHacks 2018, PennApps 2018, HackCMU 2018, HackThisHelpKids 2018, Hack-a-Startup 2018, TartanHacks 2019, PennApps 2019

WORK EXPERIENCE

CMU PSYCHOLOGY DEPT - ISP TUTOR PROJECT
| Full-time Undergraduate Programmer
May 2019 - August 2019 | Pittsburgh, PA

- Used HTML5 Canvas to create a user-friendly drag-and-drop interface for creating a concept map as part of the Hypothesis module. Used JavaScript and CreateJS library for drawing and events.
- Created an account registration/signin system to log user activity. Utilized a Firebase Cloud Firestore database to retrieve and post user information. Made optimizations in preparation for 200+ daily users.
- Created a custom Python tool to download data from Firebase and convert it into csv files.
- Converted our Background Research module (70+ pages) from a Google Site into a responsive custom-stylized collection of HTML pages using HTML/CSS.
- Configured and debugged our project's local IIS Windows Server for hosting additional webpages and an SSL certificate.
- Responsible for all major tech decisions for the research team for that summer.

CMU DATABASE GROUP - NOISEPAGE
| Part-time Dashboard Developer (6 hrs/wk)
May 2019 - August 2019 | Pittsburgh, PA

- Created dashboard to display various benchmark and coverage tests for NoisePage database. Data was sourced from GitHub, Jenkins, Travis, and CodeCov APIs. Used Ruby and Smashing framework.
- Added widgets including a line chart and a leaderboard.
- Programmed the line chart widgets to rotate and display additional benchmarks as new ones are added.

ACTIVITIES

SCOTTY LABS CLUB | Director of Technology
September 2018 - Present | Pittsburgh, PA

- Responsible for leading the Full-Stack and Backend committees in Scotty Labs. These committees have 10-15 members each and are working to build our hackathon registration system and our hosted APIs respectively.
- Responsible for managing weekly tech talks and hack sessions.
- Built custom-designed registration system using Angular for TartanHacks, the largest hackathon at CMU. 400+ hackathon participants used the system to register.

PROJECTS

AUTOSCHEDULER | Frontend
February 2019
Designed a clean and responsive user interface using Bootstrap. Integrated the calendar component to display the data using jQuery and Sass. Submitted at TartanHacks.

AWARDS

2019	2nd place at Hack-a-Startup for autonomous vehicle camera startup Rayar
2018	1st place team at National Lockheed Martin CodeQuest (Java)
2018	USA Computing Olympiad Gold Division Qualifier (Java)
2018	1st place team at UT Dallas Battle of the Brains Programming Contest (Java)
2018	1st place team at National Academic WorldQuest in Washington D.C.
2016	SAT and PSAT perfect scores
2016	Two-time AIME Qualifier (Top 5% of scorers on AMC 12)