

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](https://www.linkedin.com/in/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 GROUP

| FULL-TIME UNDERGRADUATE PROGRAMMER

May 2019 - August 2019 | Pittsburgh, PA

- Used **HTML5 Canvas** and **JavaScript** to create a user-friendly drag-and-drop interface for creating a concept map. <http://tedserver.psy.cmu.edu/hypo/>
- Created an account registration/signin system to log user activity. Utilized a **Firestore database** to retrieve and post user information. <https://go.isptutor.org>
- Created a custom **Python** tool to download data from Firestore and convert it into csv files. https://github.com/isp-tutor-project/isptutor_dataprocessor
- Converted our Background Research module (70+ pages) from a Google Site into a custom-stylized collection of HTML pages using **CSS**. <https://go.isptutor.org/brm>
- Configured and deployed to our project's local **IIS Windows Server**.

CMU DATABASE GROUP

| PART-TIME DASHBOARD DEVELOPER

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**.
- Programmed the line chart widgets to rotate and display additional benchmarks as new ones are added.
- <https://github.com/cmu-db/terrier-dashboard>

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 we are working to build our TartanHacks registration system and our **NodeJS/Flask APIs** hosted on our **Linux** server.
- Configured custom-designed registration system using **Angular** and **MongoDB** for TartanHacks, the largest hackathon at CMU. 400+ hackathon participants used the system to register. <https://github.com/ScottyLabs/TartanHacksRegistration>

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.

<https://autos-scheduler.herokuapp.com/>

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)