Julie Wang

BROWN UNIVERSITY '21 • COMPUTER SCIENCE SC.B.

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Skills

PROGRAMMING
Java, Python, C#,
C++, JavaScript,
React, TypeScript

DESIGN
InDesign, Photoshop,
Illustrator, XD, Figma,

OTHERS
SQL, HTML/CSS

Coursework

Software Engineering, UI/UX,
Computer Graphics, 2D Game
Engines, Virtual Reality, Object-
Oriented Programming, Data
Structures & Algorithms, Discrete
Mathematics, Linear Algebra,
Statitical Inference

GPA: 4.0

Interests

Typography, user experience,
vector illustration, STEM
education, printing and publishing,
animation, LED screens, and trying
burgers across the world.

Work Experience

HEAD TEACHING ASSISTANT
Brown CS Department • Aug 2018 – Present

- Led a staff of 45 undergraduate TAs to teach Brown's largest course, Introduction to Object-Oriented Programming, with 400 students.
- Worked on curriculum development, such as developing a new homework assignment
- Made 2549 contributions on Piazza, the course's online Q&A forum, in a single semester.
- Cumulatively held over 80 hours of office hours as a teaching assistant and mentored two weekly sections.
- Also served as an undergraduate TA for Discrete Mathematics.

UNDERGRADUATE RESEARCH DEVELOPER
Brown University Graphics Lab • Feb 2018 – Sep 2019

- Developed pen & touch computing software in C#, React, and TypeScript.
- Worked with Professor Andries van Dam on the "Dash" project, focused on organic note-taking.
- Completely redesigned the application's user interface, and implemented other features such as export and freeform linking.

GLOBAL PROGRAM COORDINATOR
World Scholar's Cup • Jun 2016 – Present

- Senior staff member for an educational program, which holds events in over 70 countries.
- Led setup and logistical coordination for over 50 events, the largest of which took place in Kuala Lumpur in June 2018, with 4500 attendants from over 40 countries.
- Recruited and met with over 100 schools in over 20 cities across the world.
- Designed almost all print materials, such as flyers, program booklets, schedules, and maps.
- Built tools to automatically generate shipping lists, organize rosters, and validate scores.

ADOBE INDESIGN EDUCATOR
Brown Computing & Information Services • Sep 2017 – Sep 2019

- Taught for Professional and Academic Skills for Students, which holds weekly lessons on specialized software for the general community.
- Led 8 workshops on Adobe InDesign using self-developed lesson plans.

Programming Projects

MYSTERY DUNGEON
Java/JavaScript • May 2019

- Helper tool for the narrative game Dungeons and Dragons.
- Graphical random dungeon generator with options for size, difficulty, and theme.
- Enhanced REPL-like interface for combat management and quick information lookup.
- Scraped data using Beautiful Soup, and saved with SQLite.
- Playtested with real players and designed solutions with them in mind.

WALUIGI TIME
C++/GLSL • Dec 2018

- A Waluigi-themed minigame created in virtual reality.
- The player wanders through a field of columns, throwing tennis balls at targets.
- Built an algorithm for procedurally generating a scene upon launch, using poisson-disc sampling.
- Wrote all graphics and physics components from scratch.
- Made for the Vive system.

EVERYDAY APPS
React • Feb 2018

- A series of webapps built to assist with smaller use cases.
- Hierarchy: displays hand-selected Google Fonts combinations with varying lengths of preview text.
- Shortcuts: given the current keyboard input, display what shortcut that does in various Adobe CC applications.
- Quiz Bowl: dashboard for moderators to read questions and keep score in one page.

GAME ENGINE
Java • Sep 2019

- A backend for game development made entirely from scratch.
- Implements the entity-component system design pattern to quickly build and manage game objects.
- Uses a self-made, responsive UI toolkit.
- Designed to be extensible and allow multiple, diverse games to be created with it.
- Currently in progress.