

Claire Boals

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Education

Bachelor of Science in Computer Science – May 2020 (Tufts University)

Relevant Courses

Data Structures (C++)	Programming Languages
Machine Structure and Assembly Lang. Programming (C)	Software Engineering (Java)
Object-Oriented Prog. for Graphical UI (Java, Swing)	Algorithms
Web Programming (JavaScript, HTML/CSS)	Computation Theory

Selected Projects

TodoQuest – *current self-directed project*

- Designed and developed mobile app that turns goals into quests and hobbies into skills to level up
- Implemented UI for home page, quest page, and todo input dialog
- Created backend system to turn user goal inputs into quest pages each with separate todo lists
- Utilized Flutter, Dart, and Firebase

Chess Game Simulator – *February 2020*

- Implemented Java command-line interface which intakes chess moves and validates them given any board layout
- Incorporated design patterns such as the singleton pattern for the board and factory pattern to create pieces
- Developed input modules for parsing board layouts and reading chess moves
- Implemented chess piece classes to represent each piece's possible moves and a chess board observer to facilitate the simulation and call a listener for key events

What's That Song? – *Sept-Dec 2018*

- Led team of 4 in designing web app and created concept for app that returns Spotify results on lyric search
- Developed backend structure for MusixMatch and Spotify API interactions with JavaScript and implemented server code using Node.js
- Implemented front-end design for search bar and results page using Bootstrap and JavaScript
- Utilized JavaScript, HTML/CSS, Bootstrap, Spotify API, MusixMatch API, and Node.js

JumboCode Bi-Spot Resource Locator – *Sept-Dec 2018*

- Collaborated on team of 12 to analyze needs of the Bisexual Resource Center and design an app that shows users the nearest BRC locations and list their upcoming events
- Implemented front-end design for search bar with React and search bar functionality using Google Maps API
- Utilized JavaScript, React, Node.js, and Google Maps

Image Compressor – *October 2018*

- Designed and implemented C modules that integrated to compress and decompress images
- Implemented lossy compression algorithm that quantizes pixel data and packs it into bits as well as un-quantizes and unpacks bits to decompress images
- Followed rigorous unit testing strategies to test throughout development ensuring smooth integration of modules

Technical Profile

Languages: Java, C, C++, Python, JavaScript, HTML/CSS, Ruby, Dart, Git

Technologies/Frameworks: Swing, React, Node.js, Bootstrap, Flutter, GitHub, Trello

Work Experience

Tisch Library Digital Design Studio – Studio Assistant, *Sept 2018-May 2020*

- Troubleshoot computer and software issues, formatted and printed large posters for Tufts community members, assisted with Adobe CC and studio recording projects, managed and maintained lab space and computers, provided customer service to library and studio patrons

Hobbies & Interests

Hobbies: Video games, VR, video editing, playing guitar, singing • **Interests:** Video game dev, mobile app dev, UI/UX design