Arslan **Sadiq**

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Education

Stony Brook University

Stony Brook, NY

B.S. in Computer Science — *Sep. 2015 - May 2019*

- Major GPA: 3.78/4.0
- Stony Brook Scholar (Top 10% of incoming freshmen)
- Co-founder of Stony Brook Science Olympiad Mentorship program

Skills

Languages Java • C • Python • Javascript • MIPS Assembly

Frameworks/Technologies JUnit • Criterion • CGDB • Firebase • Bash • SQL • JQuery • NodeJS • Git • JSON • XML

Platforms Ubuntu • Windows 10

Experience

Interview Avenue

Research Assistant — *Fall 2016*

- A progressive web app that helps users find, suggest, favorite, and hide available internships.
- HTML5, CSS3 and Javascript for the frontend and JQuery and Firebase (NoSQL) are used for the backend. Allows users to login using Google API authentication.
- Utilizes browser cache and service workers to allow for dynamic offline use for users with bad internet connectivity.
- Will be used by the Computer Science department and its students. Found at https://interviewavenue.firebaseapp.com/.

Dynamic Memory Allocator

Project — *Spring 2017*

- Built a dynamic memory allocator similar to the one provided by the GNU C Library (glibc) in C programming language.
- The allocator uses an explicit free list and provides information on the current state of your memory allocator.
- Learned how the dynamic memory allocator operates, how internal/external fragmentation occurs in memory, and how to manage an unknown sequence of malloc/free requests.
- Improved my debugging (CGDB), unit testing (Criterion) and software design skills.

Unix Shell

Project — *Spring 2017*

- Implemented a Unix shell that allows the user to enter all commands available in Linux along with proper arguments.
- Commands can also be piped and redirected in multiple ways.
- Utilizes low-level Unix system calls, signal handling, file descriptor manipulation, and processes.
- Processes can be ran in the foreground or background and can be managed in the shell. The user can get info, duplicate, or kill any of these processes.

Buzzword

Project — *Fall 2016*

- A JavaFX application that is a spinoff of the popular word game “Boggle”.
- Users try to identify as many words as possible from a graph of 16 nodes (4x4 grid).
- FXML and CSS are utilized for the UI design. Javax.json is utilized to create JSON files that store player information. Dynamic programming algorithms is utilized to determine solutions in regards to dictionaries.
- Improved skills in software design methods and multhithreaded animation design.

Coursework

- Introduction to Java Programming
- Data Structures and Algorithms in Java
- Software Engineering in Java
- Probability and Statistics
- Introduction to Logic and Proof
- Computer Architecture
- Intro to Natural Language Processing
- Systems Programming