Sahil Johari

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OBJECTIVE

Results-driven and customer centric software engineer with **3.5+ years of experience** in engineering and delivering highly available, scalable, and real time web applications. Seeking a senior software engineer position to deliver high quality software by leveraging my knowledge and experience.

EDUCATION

Master of Science, Computer Science (Software Concentration) — **May 2019**
Southern Methodist University, Dallas, Texas — **GPA: 3.53/4.0**

Bachelor of Engineering, Information Technology — **June 2015**
University of Mumbai, Mumbai, Maharashtra, India — **Graduated with DISTINCTION**

TECHNICAL SKILLS

- **Web Standards**: HTML, CSS/SASS, JavaScript (ES6+), TypeScript
- **Libraries/Frameworks**: ReactJS, Redux, NodeJS/ExpressJS, .NET, Angular 9, ThreeJS, ROSlibJS
- **Back-end**: REST API, Python, C#, Java, Oracle PL-SQL, MySQL
- **Misc.**: Jest, Enzyme, Cypress, Rspec, Docker, Git

PROFESSIONAL EXPERIENCE

Software Engineer – Rivers Agile – Pittsburgh, PA — **August 2019 – Present**

- Develop and deliver high performance, secure, and scalable software products/solutions for customers from several industries in a fast-paced agile environment
- Streamline front-end web development effort and code reusability by leveraging the strengths of front-end frameworks and organizing code into robust and maintainable UI components
- **Key Achievements:**
  - Developed a real-time flight director web user interface over a span of 10 weeks to guide and display autonomous flight maneuvers performed by drone helicopters; optimized 3D rendering of the simulation in web browsers by reducing excessive memory consumption by 50%
  - Significantly improved the crowdfunding user experience for a white label product by redesigning the web UI to support accessibility, cross-browser compatibility, and mobile responsiveness in a span of 4 weeks
  - Enhanced the ability to extract actionable insights from data and integrate them into customers' application in 10% less time via **IBM Watson™ Discovery** by developing a natural language query interface in **Discovery Tooling**
  - Achieved an overall optimization of 70% in the application build time and 95% reduction in lines of code per feature test by developing a wrapper API around Cypress framework to simplify writing integration and end-to-end tests for IBM Discovery Tooling

Senior Analyst – Capgemini Technology Services India Limited – Bangalore, India — **June 2015 – June 2017**

- Developed and deployed 4 large scale web application products and tools over a span of 21 months for an Australia-based airline to support and enhance their flight operations and aircraft maintenance processes
- Redesigned and implemented front-end user interfaces for 2 legacy applications to provide modern aesthetics and improved user experience
- **Key Achievements:**
  - Reduced the aircraft inspection and maintenance time by 80% by automating generation and distribution of over 125 analysis reports via a web application tool built using .NET framework

- Shortened the application testing duration by 10% by developing a defect tracking application for the software testing team
- Received the **Best performer of the Quarter** award for developing a centralized web application for easier tracking of the progress of over 20 projects in a business unit

Additional Experience

Graduate Teaching Assistant – Southern Methodist University – Dallas, TX **January 2019 – April 2019**

- Course: Principles of Computer Science
- Instructed undergraduate students on hands-on programming sessions in Java conducted for a span of 8 weeks

Graduate Assistant – Southern Methodist University – Dallas, TX **April 2018 – November 2018**

- Streamlined data of low-income/ first-generation students from 14 schools across the state of Texas
- Facilitated technology support such as computer maintenance and troubleshooting across the department

ACADEMIC PROJECTS

Game for Intelligent Simulated Military Opponents (GISMO) **August 2018 – December 2018**

Designed and implemented an artificial neural network model to demonstrate the concept of "Neuro-evolution" for a battlefield concept game - GISMO, in which two rival forces compete to win by either eliminating the opponent team or destroying the opponent base.

Playing Snake using Deep Reinforcement Learning **June 2018 – August 2018**

Achieved a game score of 7 on a 10 x 10 grid in Snake by implementing a Deep Q-learning Neural Network (DQN) which is an extension of Q-learning that shows a great improvement in the outcome of a reinforcement problem. Improved the training model by using a Convolutional Neural Network for building the DQN.

Partitioning Random Geometric Graphs into Bipartite Subgraphs **August 2017 – November 2017**

Devised an algorithm to achieve optimal network coverage of wireless sensors. Improved the time complexity of the algorithm from quadratic to logarithmic time using a K-d Tree data structure and used concepts such as Depth-first search, Graph coloring, and Bipartite graph to model ad-hoc networks of varying scale across a variety of geographic areas.

OPEN-SOURCE PROJECTS

Sorting Algorithms Visualizer **June 2020 – July 2020**

A collection of p5.js sketches that simulate various sorting algorithms on randomly generated numbers, providing a visual representation of how these algorithms work internally.

Messenger App **March 2020 – May 2020**

A simple chat application which allows multiple users to chat in a shared space. The application uses React and Typescript in the front end, and Node paired with Socket-IO library for the server operations.