

Sahil Johari

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OBJECTIVE

Results-driven and customer-centric software engineer with **4 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)

Southern Methodist University, Dallas, Texas

May 2019

GPA: 3.53/4.0

Bachelor of Engineering, Information Technology

University of Mumbai, Mumbai, Maharashtra, India

June 2015

Graduated with DISTINCTION

TECHNICAL SKILLS

- **Web Standards:** HTML, CSS/SASS, JavaScript (ES6+), TypeScript
- **Libraries/Frameworks:** React.js, Redux, Node.js/Express, .NET, Angular, Next.js, Three.js
- **Back-end:** REST API, Python, C#, Java, Oracle PL-SQL, MySQL, AWS
- **Misc.:** Jest, Enzyme, Cypress, Rspec-rails, Docker, Webpack, 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
- Analyze the customer needs and translate them into UI architectural artifacts and solutions by leveraging the strengths of front-end frameworks, code reusability, and 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 along with complex features around money transactions in a span of 7 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

[ExpiryMinder](#)

February 2021 – March 2021

A basic organizing and tracking single page web app (SPA) that helps you keep track of documents like travel, finance, business, etc. which have an expiry date.

[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.