SAHIB BIR SINGH BHATIA

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EDUCATION

- **Master of Science in Computer Science, University of Liverpool, United Kingdom** **Period:** Jan 2021-Jan 2022

  Core Modules: *Machine and Bio inspired Learning, Neural Networks and Evolutionary Optimization, Applied Algorithms, Data Mining and Visualization, Data Base Management Systems, Web Programming, Python Programming*

  Expected Grade: Distinction (87%)

- **Bachelor of Engineering in Electronics and Communication, Panjab University, India** **Period:** Jan 2016-Aug 2020

  Relevant Modules: *Computer Networks, MATLAB Programming, Concrete Mathematics and Discrete Mathematics, Linear Algebra and Complex Analysis*

  Grade: First Class Honors Degree (82%)

TECHNICAL SKILLS

- **Programming Languages:** C++, JAVA, Python
- **Programming Experience:** 1 years in C++/JAVA and >2 years in Python
- **Web Programming Technologies:** HTML, CSS, JAVASCRIPT, PHP, REST API, AJAX, REACTJS
- **DevOps Tools:** Splunk, AppDynamics, Grafana, Prometheus, Autosys, SolarWinds, ServiceNow
- **Platforms:** Linux, Windows
- **Tools:** MATLAB, SQL, Slack integrations, Bash Scripting, JIRA, Git, Firebase

PROFESSIONAL EXPERIENCE

Gemini Solutions Private Limited, India **Period:** Jan-Sep 2020

Technical Trainee – DevOps Engineer

- Hands on experience on supporting, automating, and leveraging configuration management and CI/CD processes.
- Monitored the critical applications running in the production environment using different monitoring tools like SolarWinds, AppDynamics and Prometheus.
- Providing continuous debug support to developers as well as clients using our applications throughout the day for multiple financial markets of the world.
- Setup monitoring of new applications on both legacy as well as cloud servers using DevOps tools like SolarWinds, Prometheus, Grafana and PagerDuty.
- Automating the tasks in the pipeline using Autosys and Bash Scripting.

PROJECTS

1. Topic Modelling Web Application [Dissertation], University of Liverpool **Period:** Aug-Dec 2021

- The purpose of this project is to create an efficient and user friendly topic modelling tool, which combines a topic modelling algorithm known as **Latent Dirichlet Allocation (LDA)** with commonly used front end technologies to process large amount of available product review data.
- The value of this work will be permitting non-technical users like manufactures, consumers and product owners to comprehend, screen and understand product's reviews to enhance their decision making made possible through interactive visualisations.
- The technologies being used are **HTML, CSS, JS, ReactJS** for the front end and **Python** for the machine learning model at the back end.

2. Netflix Web Series Viewing Website **Period:** Aug-Sep 2021

- The website allows users to view movies and web series of Netflix according to the genre. The website is built with the help of **React JS for the front-end design** and uses an **open-source movie API** to fetch the details of different movies depending upon their genre. CSS is used for styling which helped me in capturing the essence of the Netflix's famous color scheme.
- The website is deployed on firebase and interacts with the user in a way where he/she can view different movies as well as play trailers of those selected movies on the website itself.
- The website can be accessed here: https://netflix-clone-2b2e4.web.app

3. Data Science Projects, University of Liverpool **Period:** May-Aug 2021

- **Artificial Neural Networks Optimization using Genetic Algorithm and Swarm Intelligence:**
  - Trained ANN on the iris dataset and optimized the model to explore different parameters and get accuracy of 95%.
- **Implementing Single and Multi-Layer Perceptron Models from scratch:**
  - Created perceptron models and trained them on the iris dataset to get accuracy of 95% and 98% respectively.
- **Implementation of Deep Q Learning Model on Atari Games in Open AI Gym Environment:**
  - Created a machine learning model based on Deep Q learning algorithm to train it to play the Lunar Lander Atari game.

4. Portfolio Website **Period:** April-May 2021

- This is my portfolio website. It is built with HTML, CSS and JS and showcases what I am up to currently with my projects and my skills. The website is deployed on GitHub.
- The website can be accessed here: sahibbir.github.io

5. Lab Booking Website, University of Liverpool **Period:** March-April 2021

- The website allows students to book available lab sessions through a series of steps. The website is built with the help of HTML and CSS for the front-end design which helped me in capturing the essence of the university's famous color scheme and at the back end uses a PHP script which processes the different requests sent by the user.
- The website interacts with a user created database based on MySQL which stores all the information of available lab sessions as well as stores the information of all the bookings.
- The website can be accessed here: https://student.csc.liv.ac.uk/~sgsbhati/lb/p1.php

6. Dice Game, University of Liverpool **Period:** Feb-March 2021

- The website allows the user to input the number of dice (ideally between 3-6) and then roll these dice and score some points based on the result of the roll he/she gets.
- The website uses a JS script at the backend to randomly output the result of the roll and to calculate points and output the result to the user.
- The website can be accessed here: https://student.csc.liv.ac.uk/~sgsbhati/game.html

7. Data Science in Cricket: [Literature Review], University of Liverpool **Period:** Jan-April 2021

- Research Project which evaluated multiple machine learning models used in the process of analysis and prediction of performance of a player in cricket.
- Member of a 5-person team tasked with presenting a literature review to our class. My responsibilities included studying the different machine learning models and their implementations in **Python** and present a power point presentation on the same to our class.

8. RGB Color Guesser Game **Period:** Nov-Dec 2020

- The website allows the user to increase his/her awareness about how different values in the RGB array change the color. The user must guess the color the mentioned at the top of the website [in an RGB array] and choose the correct color from the below 3 or 6 choices depending upon the difficulty chosen by the user.
- The website uses a JS script at the backend to randomly generate the RGB array and the choices below. The website can be accessed here: https://student.csc.liv.ac.uk/~sgsbhati/Color_Game.html
- My LinkedIn article can be accessed here: article