

ARSHDEEP SINGH SODHI

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EDUCATION

- **SRM INSTITUTE OF SCIENCE AND TECHNOLOGY - KTR CHENNAI, INDIA** 2020-2024
Bachelor of Technology in Computer Science and Engineering CGPA: 8.85
- **TYNDALE BISCOE SCHOOL – JAMMU AND KASHMIR**
Class XII - 79% (2019)
Class X - 83% (2017)

EXPERIENCE

- **JA SECURE | Research and Development in Machine Learning | OCT 2023 – PRESENT**
 - Developed and implemented a chatbot using advanced transformer models, enhancing user interaction with a JSON-based FAQ system for efficient query handling, conducted thorough data pre-processing on the JSON file, optimizing tokenization, and removing redundant tokens, significantly improving performance.
 - Provided valuable insights through an in-depth analysis of Large Language Models, offering recommendations for hyper-parameter tuning, model architecture enhancements, and user-friendly features like tree structure and voice recognition using ALAN AI. Developed an approach to automate the conversion of raw data (e.g., WhatsApp conversations) into training-ready formats, followed by model training for FAQs, enhancing efficiency and scalability.
- **IBM SkillsBuild Virtual Internship | Frontend Developer | MAY 2023 – JULY 2023**
 - Developed a website similar to Apple Vision Pro, using skills in HTML, CSS, and JavaScript to create a user-friendly interface.
 - Demonstrated dedication to learning the new technologies and gained practical web development experience by focusing on creating dynamic and easy-to-use interfaces with JavaScript.
- **AWS Cloud Virtual Internship | AICTE- Eduskills | MARCH 2023**
 - Gained in-depth understanding of AWS cloud services like EC2, S3, RDS, Lambda, IAM, VPC.
 - Designed fault-tolerant, scalable AWS solutions and gained hands-on experience in provisioning, monitoring, and automating cloud infrastructure using AWS Management Console and AWS CLI.

PROJECTS

- **Safe Route Web Predictor | Machine Learning, Python, Web Scraping, HTML, CSS | [LINK](#)**
This project aims to find the safest path between two points by leveraging crime data obtained through web scraping.
 - Implemented the KMeans algorithm in Python to cluster crime data for the Smart Routing application.
 - Utilized web scraping techniques with BeautifulSoup and Scrapy libraries to collect crime data from sources provided by the Delhi Police. Incorporated essential features, including an Alert Button, Crime Statistics button, and Path Finder, to enhance user experience.
- **SecureChain: Blockchain and Smart Encryption | Web 3.0, React js, Node Modules | [LINK](#)**
 - Developed a secure blockchain - based system for storing purchase details and leveraging key features like immutability, smart contracts, encryption, and digital ownership certificates.
 - Enabled direct transactions between users, and enhanced trust and transparency and contributing to a more secure, efficient, and transparent future for purchase record management.
- **Data Protection with AES Encryption and Quantum key Distributions | [LINK](#)**
 - The Quantum Cryptography project was developed to create a secure communication system utilizing the principles of quantum mechanics and cryptography.
 - This project offered an unparalleled learning opportunity, enabling the application of knowledge and skills to real-world scenarios.

TECHNICAL SKILLS AND INTERESTS

Programming: C/C++, Python, Java

Hard Skills: Natural Language Processing (NLP), Deep Learning, Predictive modelling, Neural Networks

Frontend: HTML, CSS, JavaScript

Devops/Databases: Docker, Kubernetes, AWS

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Object Oriented Programming, Rest API

ACHIEVEMENTS AND CONFERENCES

- **Hackathon :** Winner of SRM Techno Hackathon in association with Ja Assure, Singapore | April 2023
- **Problem Solving :** Solved 200+ problems on [GFG](#) / [Leet code](#) / [Hacker Rank](#)
- **Conferences :** 1. 2024 3rd IEEE International Conference on Artificial Intelligence for Internet of Things (AIIoT 2024).
2. " Industry 5.0 Emerging technology to transform the globe " NCIET 2023, Organized by National institute of technical teachers training and research SERB - DST sponsored National conference Apr 2023