

Anshul Kumar Singh

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Profile

Hello! I'm Anshul Singh, a master's student actively seeking internship and graduate opportunities as a software engineer. I am skilled in Python and Java, with a keen interest in AI/NLP development, and experienced in building web applications using the MERN stack (MongoDB, Express.js, React.js, Node.js). I'm passionate about creating innovative solutions and am eager to apply my academic knowledge to real-world challenges. I am committed to continuous learning and growth in a professional environment. Let's connect and discuss how I can contribute to your team!

EDUCATION

Loughborough University- MSc in Advanced Computer Science

2023 - 2024

Key modules: Artificial Intelligence, Computer Vision, Cryptography, Secure Networks and Robotics.

Masters Project - AI-Enhanced SQL Test Question Generator

JSS Academy of Technical Education- BTech in Information Technology

Jul 2018 - Jul 2022

Grade: First-Class Honours with Distinction

Key modules- DSA, Web Technology, Computer Networks, Operating Systems, Data Analytics, Maths, English.

City Montessori School, India

Jul 2015 - Jul 2017

A-Level Equivalent (Physics, Chemistry, Maths, Computer Science)

GPA: 8.8/10

EXPERIENCE

Loughborough University

Student Ambassador, School of Science

Dec 2023 - present

- Demonstrated excellent customer service skills.
- Clear and confident communicator while representing the school at various events.
- Maintained composure and provided solutions to prospective students' needs even under pressure

Conduent Business Services India

Technical Business Analyst

Feb 2022 - Sept 2022

- Utilized proficient SQL skills for complex data extraction from diverse sources, enabling accurate data analysis and informed business decision-making.
- Combined expertise in SQL, Quality Assurance, and diverse testing methods (including manual calculations, regression, and web-based testing) to enhance software performance and user satisfaction.
- Performed detailed manual calculations to verify system accuracy, playing a critical role in maintaining data integrity and system reliability.

Technophile Bud

Web Developer (Intern)

Nov 2021 - Jan 2022

- Engaged in hands-on development and optimization of web applications.
- Frontend Development: Led frontend development, crafting dynamic user interfaces with HTML, CSS, and JavaScript, utilizing frameworks like React.js for enhanced interactivity.
- Backend Development: Implemented robust server-side logic using Node.js and Express.js, coupled with efficient database management with MongoDB or MySQL for seamless data handling.
- Optimization: Seamlessly integrated frontend and backend components, optimizing performance through asynchronous programming and caching techniques for enhanced user experience.

Verzeo Bud

Web Development (Internship Program)

Jan 2021 - Feb 2021

- Project Contributions: Developed web applications and responsive websites using HTML, CSS, and JavaScript.
- Collaborative Problem-solving: Engaged in team problem-solving and code reviews, fostering innovation.
- Skill Enhancement: Improved proficiency in React and Node.js through workshops and training sessions.

Professional Skills

- Programming Languages - Proficient in Java, Python, JavaScript, and C.
- Web Development - Experienced with JavaScript, React.js, Node.js, HTML, and CSS.
- MATLAB for Computer Vision: Proficient in using MATLAB for tasks such as image processing, object detection, and feature extraction.
- Natural Language Processing (NLP) - Proficient with Python libraries such as NLTK and spaCy for text processing, sentiment analysis, and machine translation.
- Database Management - Proficient in using SQLAlchemy for database schema management and SQLite for database operations. Capable of integrating databases with NLP-driven applications.
- Networking - Skilled in using Kathara lab and Ubuntu for networking simulations, configuring network topologies, and troubleshooting network issues.
- Machine Learning - Proficient in frameworks including TensorFlow, PyTorch, scikit-learn, and Keras. Experienced in building and training machine learning models for classification, regression, and clustering.
- Search Engine Optimization and Video Editing.

Projects ([GitHub- github.com/anshulaks](https://github.com/anshulaks))

SQL Query Generator with Multi-Agent NLP Integration

- System Development: Engineered a multi-agent desktop application capable of generating SQL queries from natural language input, leveraging advanced Natural Language Processing (NLP) techniques. This system efficiently translates user-friendly language into accurate SQL commands.
- Implementation: Utilized Python with the OpenAI GPT model for natural language understanding, integrating SQLAlchemy for database schema management. Streamlit was employed to create an intuitive user interface, enabling smooth interaction between users and the backend agents.
- Evaluation: Validated system performance through rigorous functional testing and tool's effectiveness was demonstrated by metrics such as query success rate and user satisfaction feedback.

Game Rental Management System

- Game Rental Management System Development: Led the design and implementation of a Python-based game rental management system, utilizing SQLite for efficient data storage and retrieval. Managed diverse game-related information, including titles, ratings, rental history, and customer data.
- Subscription Service Integration: Integrated subscription services into the system to offer users exclusive features based on their subscription status. Utilized Python's flexibility to seamlessly incorporate subscription management functionalities, boosting user engagement and retention.
- Data Visualization and Analysis: Implemented data visualization and analysis features using Pandas and Matplotlib libraries.

Online Learning Platform

- Frontend Development: Create an intuitive interface with HTML, CSS, JavaScript, and React.js. Include features like course listings, video lectures, quizzes, progress tracking, and discussion forums. Ensure responsiveness and accessibility for diverse users.
- Backend Development:
Develop a scalable backend with Node.js and Express.js. Handle user authentication, course management, and data storage using MongoDB or MySQL. Establish communication between frontend and backend for seamless interaction. Integration and Communication:
- Implement RESTful APIs or GraphQL for efficient data exchange. Enable real-time updates and notifications using WebSocket or SSE. Foster engagement and collaboration among users through interactive features.

Certification

Coding Ninjas- Introduction to Java

Dec 2022 - Feb 2023

Comprehensive introduction to Java programming covering basic syntax and concepts. Hands-on experience with Java through practical exercises and assignments.

Coding Ninjas- Data Structures in Java

Dec 2022 - Apr 2023

Focuses on data structures and algorithms using Java. Covers arrays, linked lists, stacks, queues, trees, graphs, sorting, and searching algorithms.

REFERENCES

References available upon request.