CANDIDATE'S DECLARATION

We **Mili Srivastava (205433)** and **Rachit Bharadwaj (205445)** students of B.Tech. (InformationTechnology) at Uma Nath Singh Institute of Engineering and Technology, VBS Purvanchal University, Jaunpur, declare that the work presented in this Project Report titled **"Web 3.0 and Blockchain Based Decentralized Social Connectivity Web Application"** submitted to the **Department of Information Technology** for the award of Bachelor of Technology degree in Information Technology. All the work done in thisproject report is entirely our own except for the reference quoted. To the best of our knowledge, this work has not been submitted to any other university or Institution for the award of any degree.

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ABSTRACT

The "Decentralized Social Media Web Application" project presents a groundbreaking approach to social networking by leveraging decentralized technologies. Developed with Next.js for the frontend, Solidity for Ethereum smart contracts, MongoDB for user data management, and IPFS for decentralized storage, the platform prioritizes user privacy, security, and data ownership. Users can register, create and edit posts with IPFS integration, engage in social interactions, send messages, and manage profiles. The application's decentralized nature, driven by IPFS and Ethereum smart contracts, ensures tamper-resistant content storage and trustless transactions. The project aims to address the shortcomings of centralized social media, offering a decentralized alternative that empowers users and embraces the principles of transparency, security, and user control.

This decentralized social media web application not only addresses current challenges but also positions itself for scalability and future innovation. The modular architecture built with Next.js allows for seamless scalability of the frontend, ensuring a responsive and dynamic user interface as the platform grows. The integration of Ethereum smart contracts provides a foundation for potential future functionalities, including the implementation of decentralized autonomous organizations (DAOs) and novel token-based incentives, fostering a community-driven ecosystem. Scalability and innovation are crucial aspects as the platform evolves to meet the ever-changing needs of its user base.

At the heart of the project is a commitment to a community-centric approach. The decentralized nature of the application empowers users by granting them control over their data, fostering a sense of ownership and trust within the community. Enhanced social interactions, user-driven content curation, and the potential for community governance through smart contracts contribute to a more inclusive and participatory social media experience. By placing the community at the forefront, the project aspires to create a vibrant and sustainable ecosystem where users actively contribute to the platform's growth and development.

Security and privacy are paramount in the design and implementation of the decentralized social media web application. Utilizing Ethereum's blockchain technology ensures a secure and transparent environment for smart contract execution, safeguarding user interactions from malicious activities. IPFS integration for content storage enhances privacy by decentralizing user data, mitigating risks associated with centralized storage vulnerabilities.

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