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## Steganographic Metadata Embedding to Trace the Footprint of ChatApp Images

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Abstract: This research paper proposes a method to trace the footprint of senders while forwading of images on ChatApp by embedding metadata (such as mo- bile numbers) using Least Significant Bit (LSB) steganography. The technique ensures that the hidden information is imperceptible to users and remains intact even after ChatApp's image com- pression. The method allows for tracking the dig- ital footprint of images, providing traceability to combat misinformation, piracy, and privacy con- cerns. The system is robust, enabling metadata recovery after multiple shares, with applications in digital forensics, media integrity, and monitor- ing the spread of viral content

Keywords: LSB, Steganography, Metadata, Imperceptibility, Data-Hiding, Cryptography

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