CodeFace

A deep learning printer-proof steganography for face portraits

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Main objectives of CodeFace

- Add a new level of security to validate documents

- Confirm if a document holds a validated photo

- Steganography technique to encode information over face portraits

- Project in partnership with INCM

Additional Level of security in documents

CodeFace Architecture

- Convert encoded message to bit array

- Add redundancy with BCH Algorithm

- Adversarial Architecture to encode information over images
- UNET
- Spatial and Channel-wise attention models

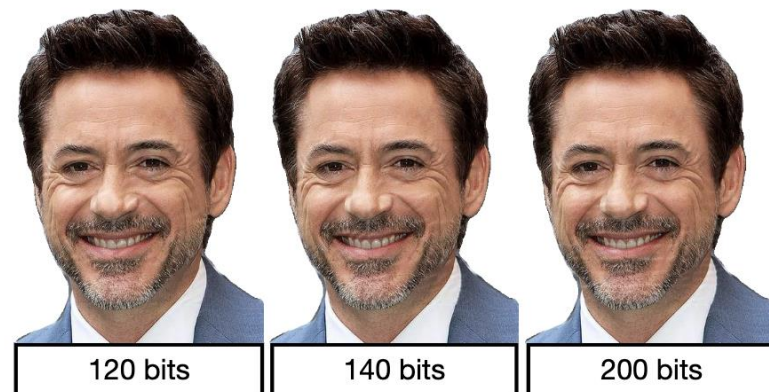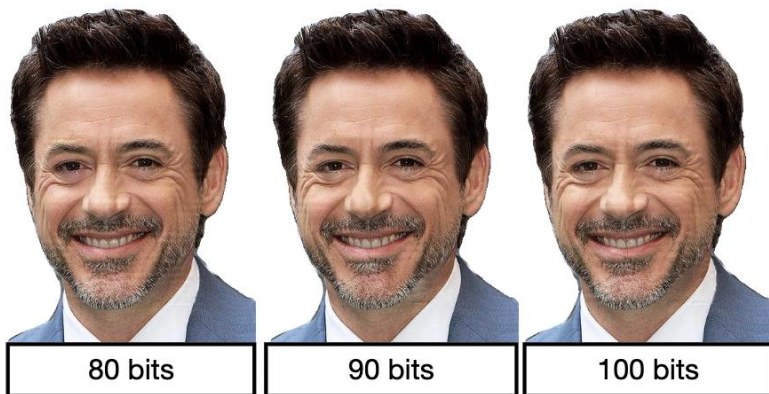- Robustness (Perspective warp, JPEG compression, noise, blur, Color Manipulation)

- Mobile App

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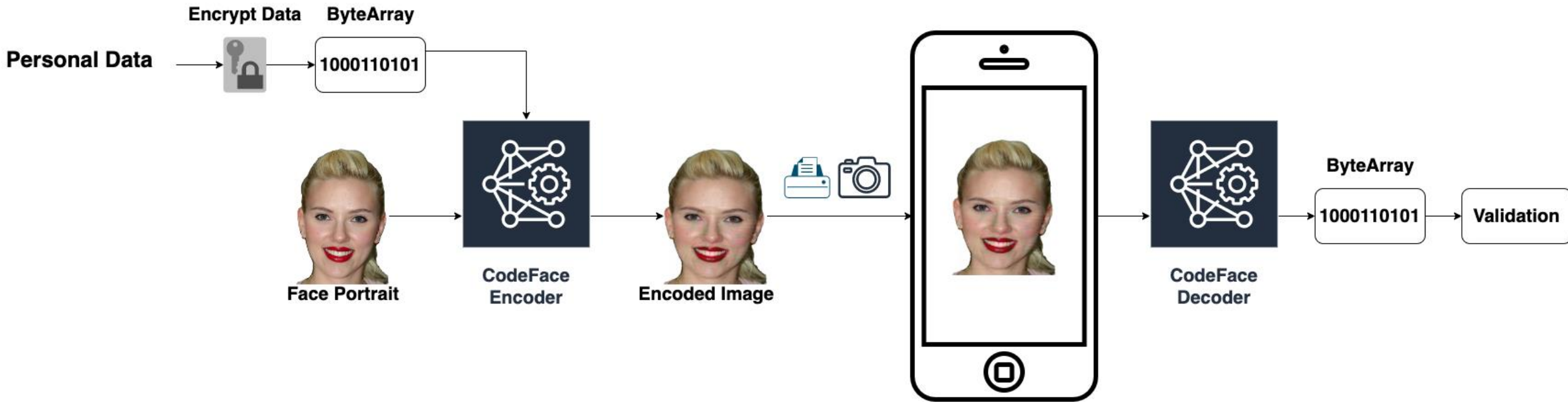
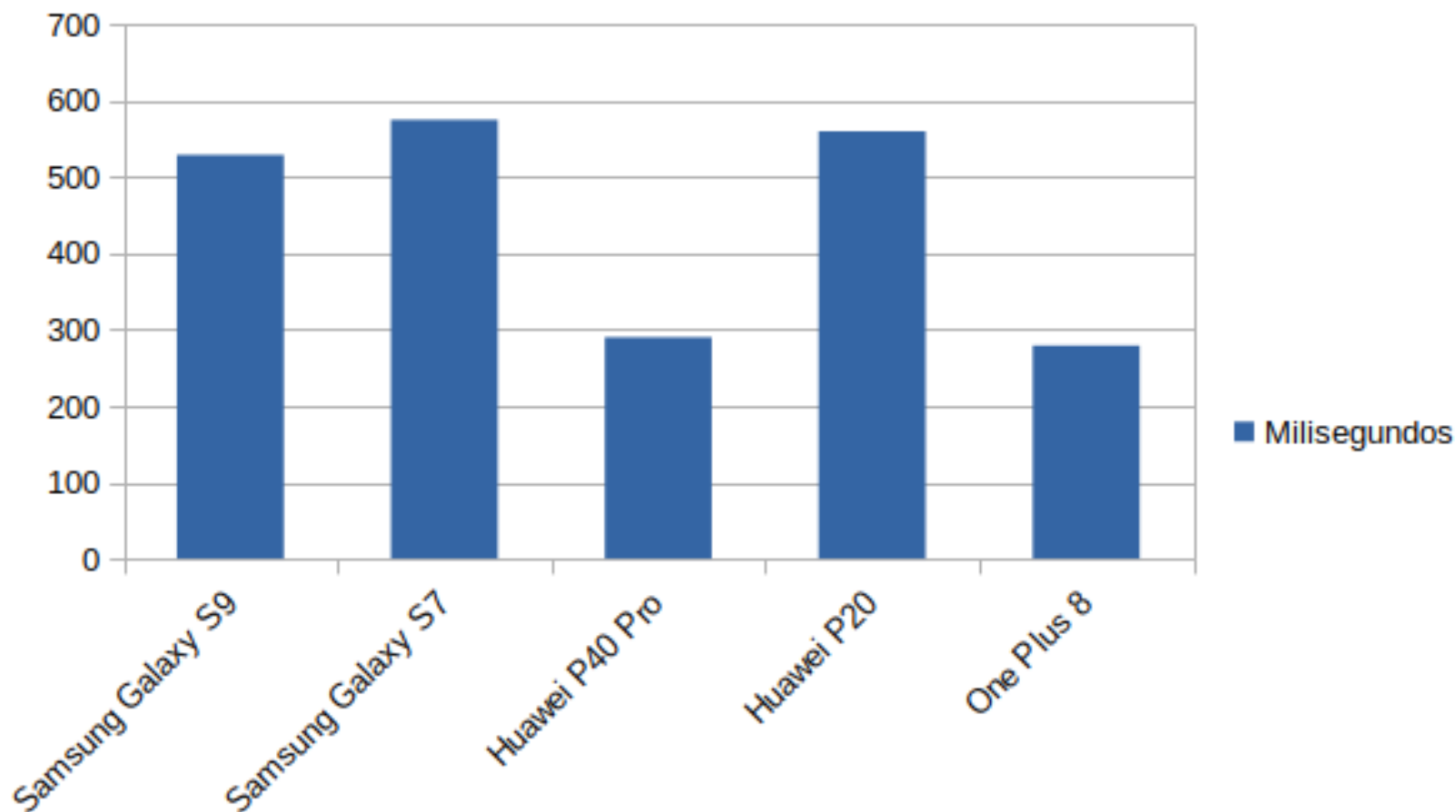# CodeFace Encoder
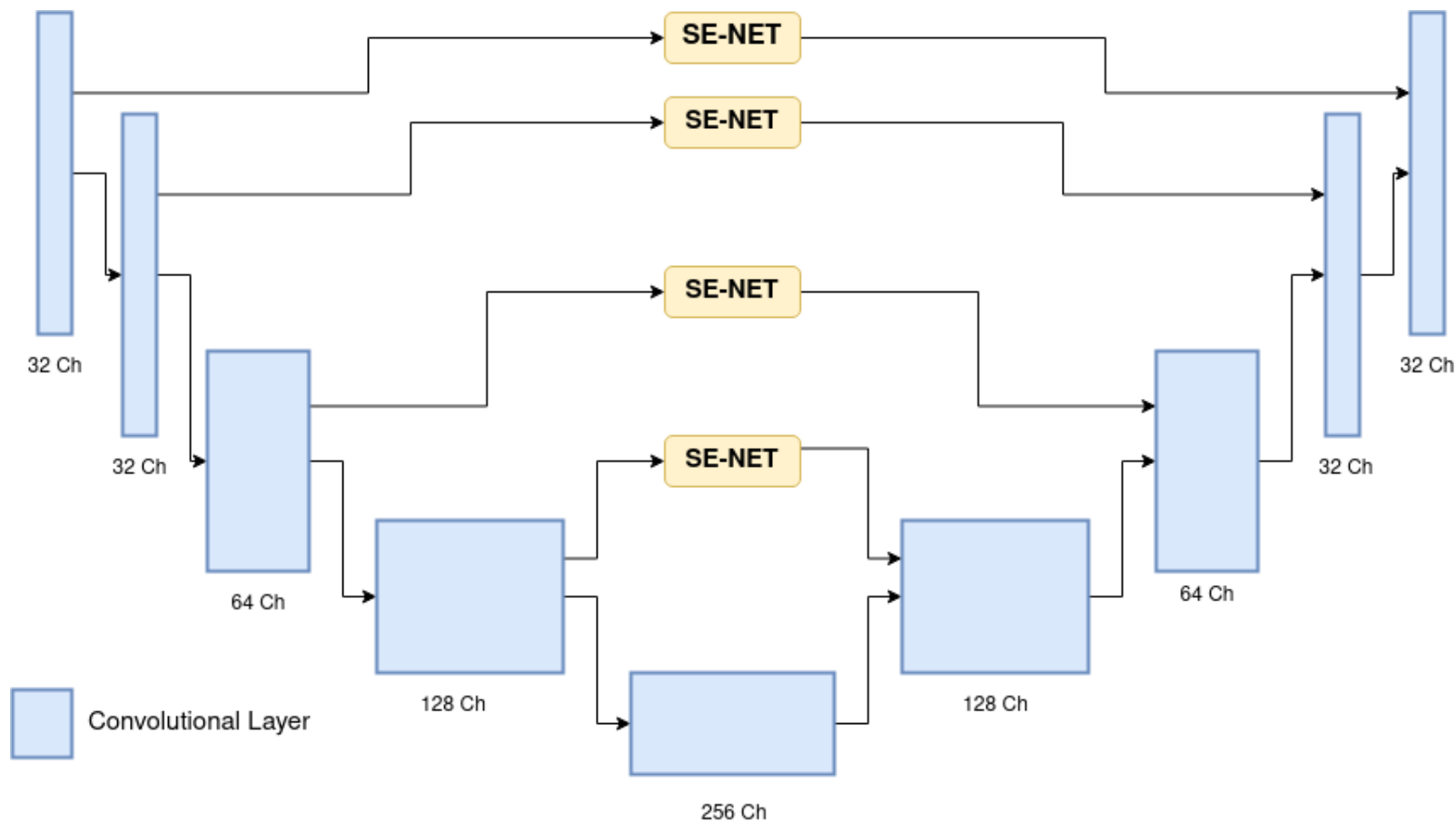
CodeFace Decoder
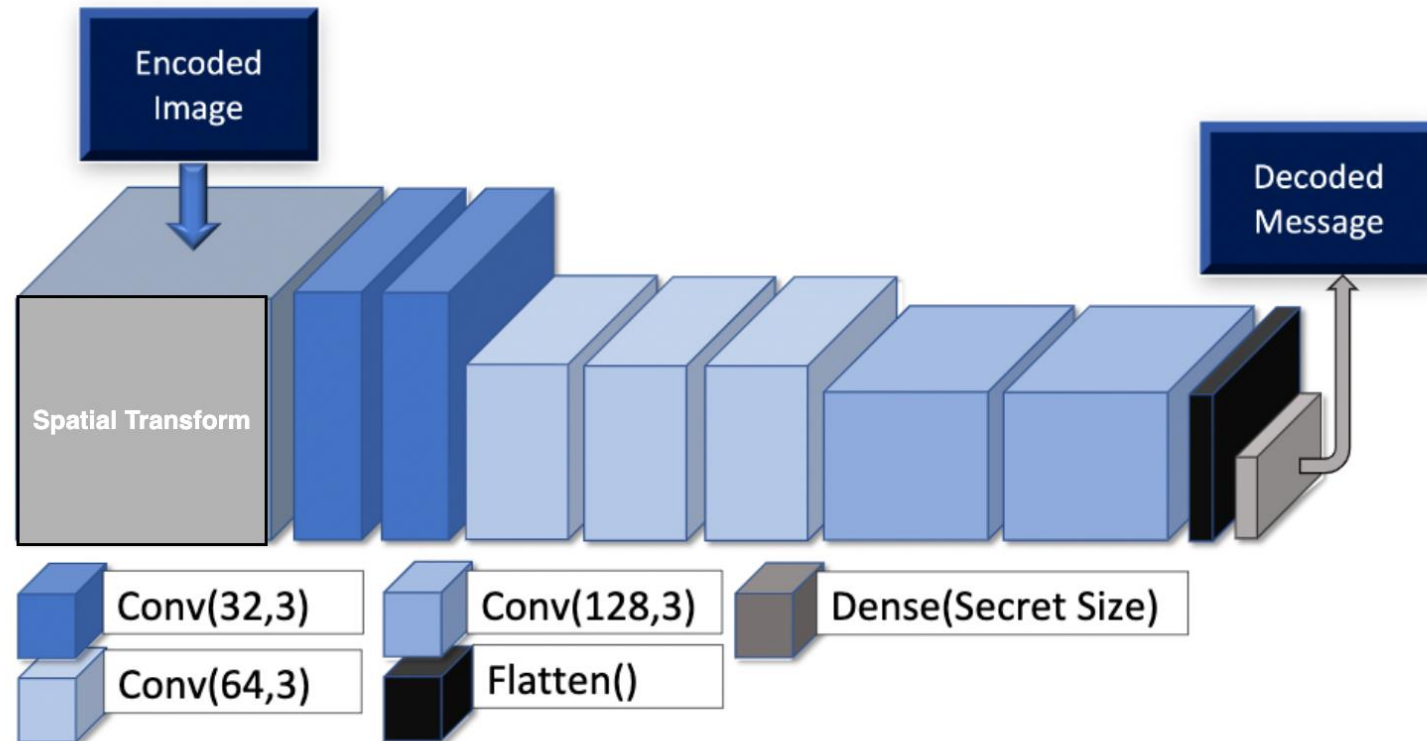
Evaluation

Message Size X Artifacts

Light Conditions
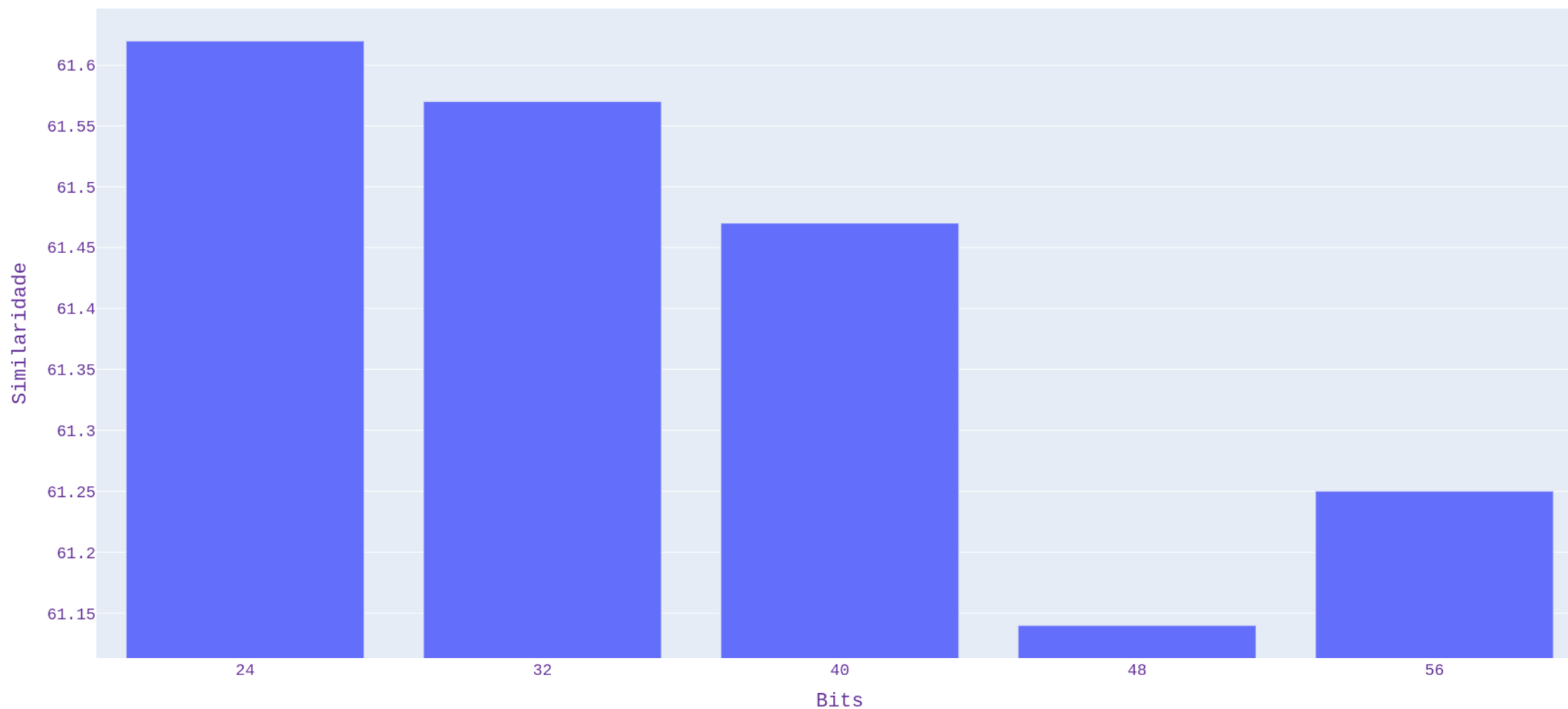
Processing Time

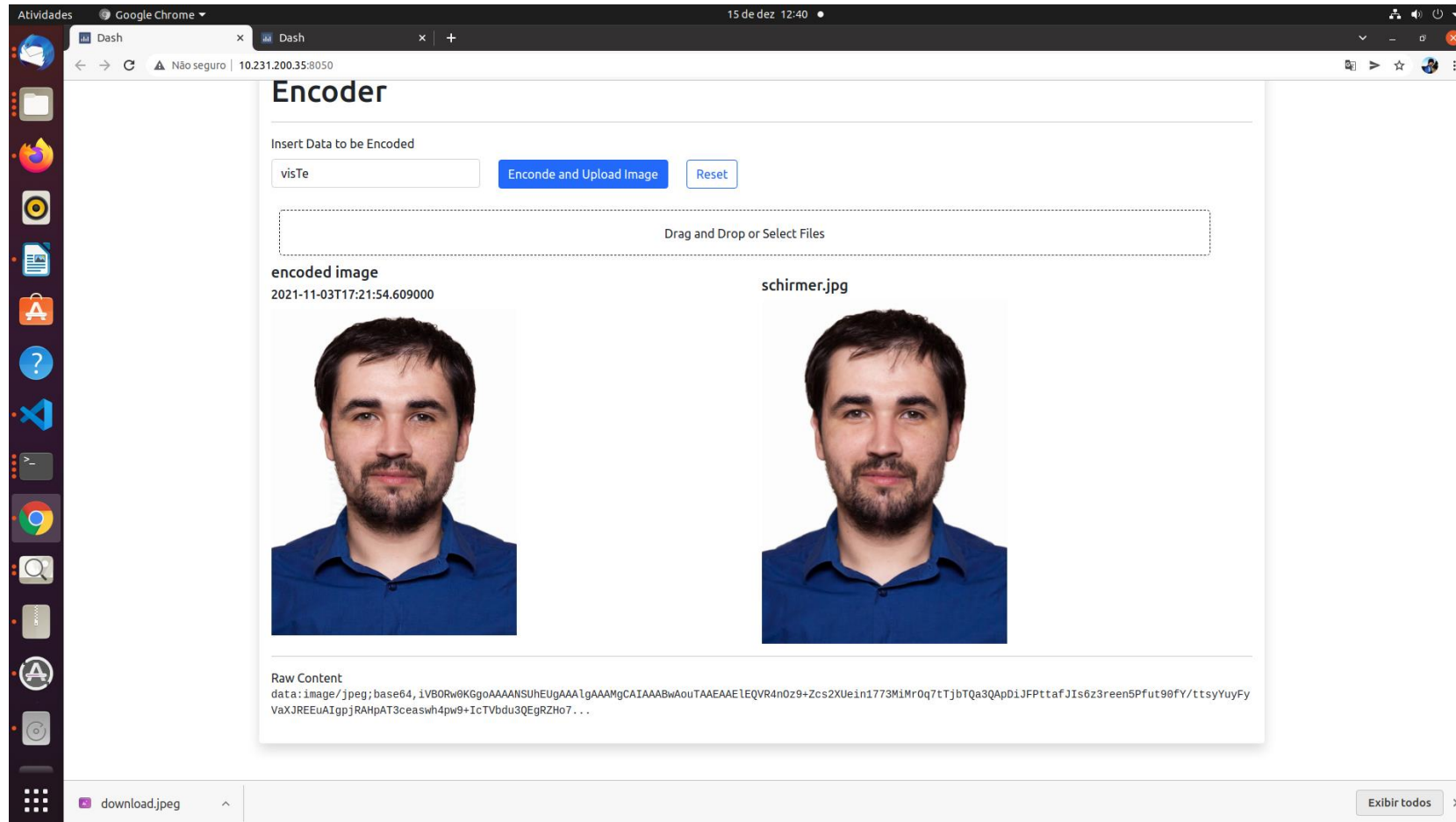Similaridade da imagem codificada e original conforme num. bits (espacial)

Mobile Apps

Web App

Thank You!

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