Total recall or how to classify and recognize, phishing websites via image recognition

Where Carl Hauser meet Douglas Quaid

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The Dirty Reality of Website Screenshots

- CIRCL does a lot of automation on malicious or suspicious website.
- 10000+ onion hidden services are crawled[1] on a daily basis generating more than **10k screenshots per day**.
- **2000+ phishing website**[2] are crawled and generating **associated screenshots**.
- We were sitting on a huge amount of data but what can we do this?

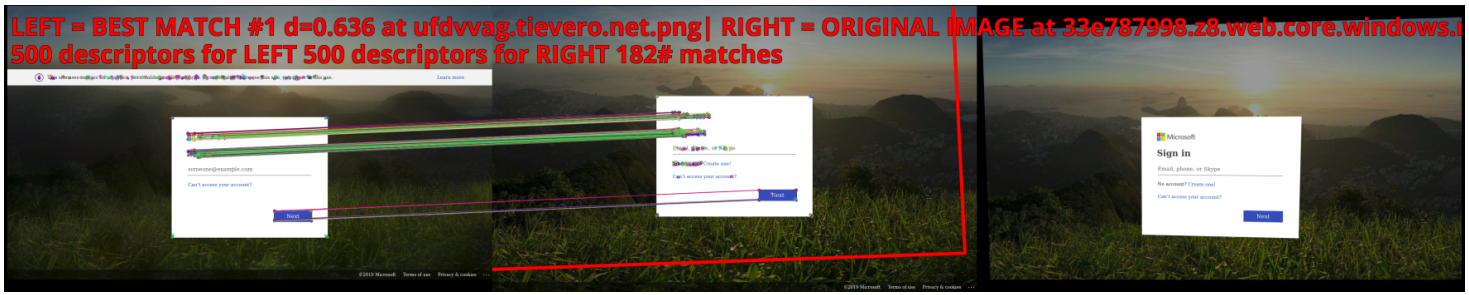
[1] https://github.com/CIRCL/AIL-framework

[2] https://www.misp-project.org/

The Road to Open Source Tooling for Image Classification

First step

- Everything started with the internship of Vincent Falconi (INSA/Lyon).
- **Carl Hauser** [3] was the **first step to evaluate** the known image distance, classification.
- Tooling was required for classification so a tool was created:
- **visjs_classificator** [4] - Classificator for pictures matching and clustering. Fast and visual.

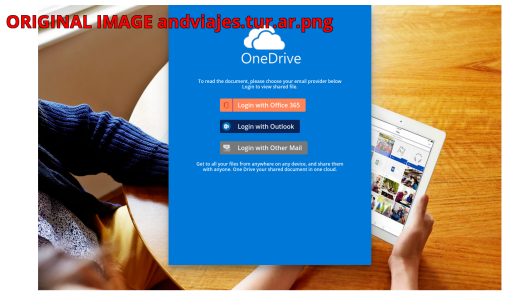


[3] https://github.com/CIRCL/carl-hauser

[4] https://github.com/Vincent-CIRCL/visjs_classificator

Second step

- **Douglas Quaid** - Open source software for image correlation, distance and analysis[5].
- **Open dataset**[6] of phishing websites screenshot including labeled classification.



[5] https://github.com/CIRCL/douglas-quaid

[6] https://www.circl.lu/opendata/circl-phishing-dataset-01/ https://www.circl.lu/opendata/datasets/circl-phishing-dataset-01/

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- OpenPGP fingerprint: CA57 2205 C002 4E06 BA70 BE89 EAAD CFFC 22BD 4CD5