europass

Cristian Di Iorio

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Nationality: Italian

EDUCATION AND TRAINING

[17/09/2024 – Current] **Master's Degree in Computer Science**

Sapienza Università di Roma

City: Rome | **Country:** Italy | | **Level in EQF:** EQF level 7

[27/09/2021 – 19/12/2024] **Bachelor's Degree in Computer Engineering**

Sapienza Università di Roma

City: Rome | **Country:** Italy | | **Level in EQF:** EQF level 6

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PROJECTS

Automated Detection of Security-Sensitive UI Elements

Designed a three-stage pipeline to automatically identify and tag security-sensitive UI widgets for Clickshield. Proposed using UI-CTX for static code analysis to construct UI Handler Graphs, applying a Graph Neural Network for binary classification at the graph level, and defining automatic code-level annotations to guide runtime overlay protection.

Link: https://cristiandiiorio.it/assets/pdf/dns-report.pdf

Keystroke Dynamics Recognition

Created a comparative study of three statistical keystroke-dynamics authentication models: Gaussian Mixture Models, Mahalanobis-distance classification, and Gunetti-Picardi distance metrics. Evaluated their performance (FAR, FRR, EER) on hold-time, up-down-time, and down-down-time features extracted from the Aalto, Buffalo, and Nanglae-Bhattarakosol datasets. The results, visualized via ROC curves, highlight the trade-offs of each approach in distinguishing genuine users from impostors.

Link: https://arxiv.org/pdf/2502.16177

Arduino Current Meter - Bachelor's Thesis

Developed a low-cost current monitoring system by integrating an Arduino ATMega2560 with a Hall effect sensor and an. I calibrated the sensor's readings via least-squares regression against multimeter measurements, implemented an ADC sampling routine using timer interrupts on the Arduino and wrote a C-based Linux receiver to collect and display the data. I then containerized both the receiver and a simple web interface with Docker to provide real-time monitoring and ensure reproducible deployment.

Link: https://cristiandiiorio.it/assets/pdf/bachelor-thesis.pdf

Google Drive clone

Designed and implemented a Google Drive clone using Ruby on Rails, featuring file storage, sharing capabilities, and user authentication using Google OAuth.

HOBBIES AND INTERESTS

Homelabbing and Selfhosting