PERSONAL INFORMATION

Michele Fontana

📍 Benabbio (LU), Italy

✉ michele.fontana@phd.unipi.it

Sex M | Date of birth 03/06/1992 | Nationality Italian

EDUCATION AND TRAINING

2021-present

PhD Student

University of Pisa

- I'm currently enrolled in the Italian National PhD in Artificial Intelligence (Society Area)

2017—2021

Master Degree in Computer Science

University of Pisa

- Artificial Intelligence Curriculum
- Final Mark = 110/110 cum laude
- Title of the Master Thesis: " A new approach for cross-silo Federated Learning and its privacy risks"
- I conducted my Master Thesis on Federated Learning and Privacy Risk Assessment, supervised by Prof. Anna Monreale and Dr.Francesca Naretto
- Summary of the Thesis: "I applied Federated Learning in a cross-silo setting. I developed an algorithm tailored for training Neural Networks that, by selecting at each step the model that better generalizes, highly reduces the risk of overfitting. Moreover, I assessed the privacy risk of models trained in this setting and I empirically demonstrated that they are extremely vulnerable to black-box Membership Inference Attacks "

2012-2017

Bachelor Degree in Computer Science

University of Pisa

- I graduated with the final mark = 110/110 cum laude
- During the Final Exam I presented the work: "Verifica di Sistemi Basati su Features", supervised by Prof. Laura Semini

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B2	B2	B2

(English)

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills

▪ good communication skills gained through my academic experience

Job-related skills

▪ in-depth knowledge about Machine Learning topics, in particular about Deep Learning, NLP, Federated Learning.
▪ good knowledge about parallel and distributed computing
▪ good team-working skills gained through the several group projects developed during the academic experience.

Driving licence

▪ B

ADDITIONAL INFORMATION

Publications

- *Michele Fontana, Francesca Naretto, Anna Monreale:*
  A new approach for cross-silo federated learning and its privacy risks, in *18th International Conference on Privacy, Security and Trust, PST 2021, Auckland, New Zealand, December 13-15, 2021*, link

- *Michele Fontana, Giuseppe Attardi:*
  Fontana-Unipi @ HaSpeeDe2: Ensemble of transformers for the Hate Speech task at Evalita (short paper). *EVALITA2020,* link

Workshops

- I participated to the EVALITA2020 workshop in December 2020, where I presented the work conducted with Professor Giuseppe Attardi. The work was about applying the state-of-the-art Transformer models (AlBERTo, DBMDZ) to detect the presence of hate-speech in Italian tweets.

Agreements

I agree to the office acquisition of the qualifications indicated in the curriculum and obtained at the University of Pisa. In particular, I agree the access to the qualifications about the academic career of the B.Sc. and M.Sc. in Computer Science, provided by the Computer Science department.

Date: 19/04/2022