

Dorjan Hitaj

Current position

nov.'18 – **PhD Student in Computer Science.**
university *Sapienza University of Rome, Italy*
research area *Machine Learning and Security*
advisor Luigi V. Mancini

Education

sept.'16 – jul.'18 **Master of Science in Computer Science.**
university *Sapienza University of Rome, Italy*
thesis title *Novel Evasion Attacks against Ownership-Enforcing methods for Neural Network Machine Learning Models*
advisor Luigi V. Mancini
GPA *30/30*
Final grade *110 cum laude*
extra *Honours program (Percorso di Eccellenza)*

oct.'12 – jul.'15 **Bachelor in Business Informatics.**
university *Epoka University, Albania*
thesis title *Towards Indestructible Molecular Robots*
advisor Ilir Capuni
award *Ranked 1st among Graduate Class of 2015*
GPA *4.0/4.0 (High honours)*

Experience

Research Positions

Oct.'20 – **Researcher.**
university *Sapienza University of Rome, Italy*
topic *Task Leader and coordinator in Gen4Olive EU project (Horizon-2020)*

mar.'20 – apr.'20 **Researcher.**
university *Sapienza University of Rome, Italy*
topic *Study of Machine Learning models and data analysis techniques for scoring and evaluation of computer games*
supervisor *Luigi V. Mancini*

aug.'18 – oct.'18 **Researcher.**
university *Sapienza University of Rome, Italy*
topic *Study and Design of Novel Defense and Attack methods in Machine Learning systems*
supervisor *Luigi V. Mancini*

Teaching Positions

jan.'20 – sept.'20 **Teaching Assistant**, Sapienza University of Rome, Italy.
Data and Network Security, Master Degree course in Computer Science.
professor Luigi V. Mancini

Software Developing Positions

jul.'17 – apr.'18 **Software Developer**, Chainside (Blockchain Technology Solutions), Rome, Italy.

jul.'15 – sept.'16 **Software Developer**, Excellence Labs, Tirana, Albania.

Freelance Software Developing

dec.'15 – jun.'16 **Software Developer**, AIAD (Albanian Integrated Agriculture Digitalization), Tirana, Albania.

apr.'15 – apr.'16 **Software Developer**, Okazoni.yt, Albania.

dec.'15 – feb.'16 **Software Developer**, WarshaPlus Company, Saudi Arabia.

Internships

jan.'15 – mar.'15 **Intern**, *Human Resources and Finance Department*, United States Embassy, Tirana, Albania.

Mentoring

oct.'14 – jun.'15 **Object Oriented Programming with JAVA**, "*Programming Club*" Epoka University, Albania.

Extracurricular

jan.'18 – jun.'18 **Honours Program (Percorso di Eccellenza)**.

university *Sapienza University of Rome, Italy*

topic *Secure Machine Learning*

supervisor *Luigi V. Mancini*

Grants and Scholarships

nov.'18 – oct.'21 **PhD Scholarship**.

funding *Computer Science Department, Sapienza University of Rome, Italy.*

mar.'20 – apr.'20 **Student Grant for Research Activity**

funding *Computer Science Department, Sapienza University of Rome, Italy.*

aug.'18 – oct.'18 **Student Grant for Research Activity**

funding *Computer Science Department, Sapienza University of Rome, Italy.*

sept.'16 – jul.'18 **Student Scholarship**, *Master of Science in Computer Science.*

funding *LazioDiSCO, Lazio Region, Italy.*

sep.'12 – jun.'15 **Student Scholarship**, *Bachelor in Business Informatics.*

funding *Epoka University, Albania*

Awards

feb.'20 **Premio di Laurea**, *prize for being among the best graduates of the academic year 2017-2018 in the Lazio region, LazioDiSCO.*

may.'19 **High Academic Honour Certificate (Laureato Eccellente)**, *for being among the best graduates of the academic year 2017-2018, Sapienza University of Rome.*

jun.'15 **High Academic Honour Certificate**, *for excellent performance during studies of Bachelor in Business Informatics, Epoka University.*

- jun.'15 **Certificate of Achievement**, *Ranked 1st in the Graduating Class of 2015, Bachelor Program in Business Informatics, Epoka University.*
- mar.'15 **Best Idea**, *Tung Ideva StartUp, Epoka University.*
- mar.'14 **First Place (ZeroCool team member)**, *Intelligent Minds online Programming Contest IMoPC-2014, Epoka University.*

Skills

Computer Skills

programming languages	Python, PHP, Java, SQL
markup languages	HTML
style sheet languages	CSS
frameworks and libraries	Tensorflow, Keras, Django, Symphony, Laravel, Flask, Hadoop
utility	Iptables

Languages

native	Albanian
fluent	English (TOEFL IBT, 103)
intermediate	Italian

Publications

- [1] Ilir Capuni, Anisa Halimi, and Dorjan Hitaj. **Towards Indestructible Molecular Robots**. In *SOFSEM'2015*, 2015.
- [2] Dorjan Hitaj, Briland Hitaj, and Luigi V. Mancini. **Evasion Attacks Against Watermarking Techniques found in MLaaS Systems**. IEEE-SDS Conference 2019.
- [3] Fabio De Gaspari, Dorjan Hitaj, Giulio Pagnotta, Lorenzo DeCarli, and Luigi V. Mancini. **The Naked Sun: Malicious Cooperation Between Benign-Looking Processes** ACNS 2020: 18th International Conference on Applied Cryptography and Network Security.
- [4] Dorjan Hitaj, Briland Hitaj, Sushil Jajodia, and Luigi V. Mancini. **Capture the Bot: Using Adversarial Examples to Improve CAPTCHA Robustness to Bot Attacks** IEEE Intelligent Systems.

- [5] Fabio De Gaspari, Dorjan Hitaj, Giulio Pagnotta, Lorenzo DeCarli, and Luigi V. Mancini. **A Comprehensive Analysis of Detection and Evasion Techniques for Multiprocess Ransomware** under submission.
- [6] Fabio De Gaspari, Dorjan Hitaj, Giulio Pagnotta, Lorenzo DeCarli, and Luigi V. Mancini. **En-CoD: Distinguishing Compressed and Encrypted File Fragments** 14th International Conference on Network and System Security (NSS2020).