# ANISA HALIMI

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## EDUCATION

**Case Western Reserve University**                                   *Jan. 2018 - May 2021 (expected)*
Ph.D. in Computer Science
Thesis Title: *"Modeling and Quantification of Profile Matching Risk in Online Social Networks"*
Advisor: Asst. Prof. Dr. Erman Ayday

**Bilkent University**                                                              *Sep. 2015 - Dec. 2017*
Ph.D. in Computer Engineering
Advisor: Asst. Prof. Dr. Erman Ayday

**Epoka University**                                                                 *Nov. 2014 - Jul. 2015*
M.Sc. in Computer Engineering
Thesis Title: *"On Fault-Tolerance and Intrinsic Universality of the Nubot Model"*
Thesis Advisor: Asst. Prof. Dr. Ilir Çapuni

**Epoka University**                                                                 *Oct. 2010 - Jun. 2014*
B.Sc. in Computer Engineering
Thesis Title: *"New Host Specificity Index"*
Thesis Advisor: Asst. Prof. Dr. Ilir Çapuni

## RESEARCH INTERESTS

Privacy, Security, Online Social Networks Analysis, Genomic Privacy, Machine Learning.

## WORK EXPERIENCE

**Case Western Reserve University, Department of Computer and Data Sciences** Jan. 2018
- now
*Research Assistant*                                                                 *Cleveland, Ohio, USA*

· Developing new methods to quantify and mitigate profile matching risk across online social networks
· Developing new techniques to verify the output of statistical tests in a privacy-preserving way

**Case Western Reserve University, Department of Design & Innovation**     Jun. 2020 - Aug.
2020
*Software Developer*                                                                 *Cleveland, Ohio, USA*

· Part of the team for developing *ShareTrace: A Smart Privacy-Preserving Contact Tracing Solution by Architectural Design During an Epidemic*
· Privacy and security analysis of ShareTrace
· Implementation of the algorithm to build the interaction graph and the propagation of the users' risk scores

**Ecole Polytechnique Fédérale de Lausanne (EPFL)**                     Jun. 2019 - Sep. 2019
*Research Intern at the Laboratory for Data Security (LDS)*               *Lausanne, Switzerland*

· Privacy-preserving solutions for workflow provenance

**Case Western Reserve University, Teaching and Learning Technologies**   May. 2018 - Aug. 2018
*Remote Online Class Support*   *Cleveland, Ohio, USA*

· Providing support during online teaching on zoom

**Epoka University, Department of Computer Engineering**   Jun. 2014 - Jun. 2015
*Research Assistant*   *Tirane, Albania*

· Exploring more about Nubot Model
· Making Nubots fault tolerant (part of my Master Thesis)

**Surat Teknoloji**   Jul. 2013
*Summer Internship*   *Istanbul, Turkey*

· Building market management system in C#

## AWARDS AND HONORS

- Student Travel Grant for PETS 2019

- Full Graduate Scholarship at Bilkent University, 2015-2017

- Full Graduate Scholarship at Epoka University, 2014-2015

- ICT Thesis of the Year Award (4 Year Bachelor), 2014

- Ranked $1^{st}$ in Epoka Computer Engineering Department based on the graduation degree, 2014

- Full Undergraduate Scholarship at Epoka University, 2010-2014

## PUBLICATIONS

- Y. Yoo, E. Ayday, and **A. Halimi**. **"An Anonymous Network Propagation Model to Detect Covid-19 Risks"**, In Proceedings of *the 2nd International Workshop on Social Health in the Era of Big Data (SHEBD)*, 2021.

- **A. Halimi** and E. Ayday. **"Efficient Quantification of Profile Matching Risk in Social Networks"**, In Proceedings of *the 25th European Symposium on Research in Computer Security (ESORICS)*, 2020.

- **A. Halimi** and E. Ayday. **"Profile Matching Across Online Social Networks"**, In Proceedings of *International Conference on Information and Communications Security (ICICS)*, 2020.

- I. Çapuni, **A. Halimi**, and D. Hitaj. **"Towards Indestructible Molecular Robots"**, *SOFSEM (Student Research Forum Papers / Posters)*, Pec pod Snezkou, Czech Republic, Jan. 2015.

## WORKING PAPERS

- **A. Halimi**, L. Dervishi, E. Ayday, A. Pyrgelis, J. R. Troncoso-Pastoriza, J. P. Hubaux, X. Jiang and J. Vaidya. **"Privacy-Preserving and Efficient Verification of the Outcome in Genome-Wide Association Studies"**, arXiv preprint arXiv:2101.08879, 2021.

- E. Ayday, Y. Yoo and **A. Halimi**. **"ShareTrace: An Iterative Message Passing Algorithm for Efficient and Effective Disease Risk Assessment on an Interaction Graph"**.

## TEACHING EXPERIENCE

**Case Western Reserve University, Department of Electrical Engineering and Computer Science** Jan. 2018 - May 2019
*Teaching Assistant* *Cleveland, Ohio, USA*

- EECS 356/456 - Data Privacy, Spring 2019
- EECS 233 - Introduction to Data Structures, Fall 2018
- EECS 600 - Data Privacy, Spring 2018

**Bilkent University, Department of Computer Engineering** Sep. 2015 - Dec. 2017
*Teaching Assistant* *Ankara, Turkey*

- CS 101 - Algorithms and Programming I, Fall 2015, Fall 2016, Spring 2017
- CS 102 - Algorithms and Programming II, Spring 2016, Fall 2017
- CS 577 - Data Privacy, Spring 2017

**Epoka University, Department of Computer Engineering** Oct. 2014 - Aug. 2015
*Teaching Assistant* *Tirane, Albania*

- CEN 254 - Data Structures, Spring 2015
- CEN 112 - C and C++ Programming, Spring 2015
- CEN 303 - Analysis of Algorithms, Fall 2014
- CEN 101 - Introduction to Algorithms and Programming, Fall 2014

## TECHNICAL STRENGTHS

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|---|---|
| **Computer Languages** | Python, Matlab, R, Java, PHP/HTML |
| **Protocols & APIs** | Twitter and Foursquare API, XML, JSON |
| **Databases** | PostgreSQL, MySQL, Microsoft SQL |
| **Tools** | LaTex, Putty, RStudio, PythonXY, Microsoft Office |
| **Operating Systems** | Linux, Windows |

## LANGUAGE SKILLS

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|---|---|
| **Albanian** | native |
| **English** | fluent |
| **Turkish** | advanced |
| **Italian** | basic |

## SERVICE

**Program Committee Member**

- IEEE S&P Student PC 2019
- IEEE S&P Poster Jury Member 2019

**Subreviewer**

- PETS 2021, 2020, 2019
- ACM CCS 2019, 2018, 2016
- NDSS 2017
- AsiaCCS 2018, 2017, 2016