

Oana Niculaescu

Curriculum Vitae

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Education

- Aug 2015 - present - **PhD candidate, Computer Science - Differential Privacy applied to high speed computer networks data**, *University of Massachusetts Boston*, Boston, Massachusetts, United States.
Database Security and Differential Privacy
- Oct 2010 - **Bachelor's degree in Computer Engineering**, *Faculty of Automatic Control and*
Jul 2014 *Computer Science, Politehnica University of Bucharest*, Bucharest, Romania.

Publications - Conferences

- 2018 **Towards Efficient and Accurate Differentially-Private Mining of High-Speed Network Flow Data**, *WIREs Data Mining and Knowledge Discovery Journal*, (under review), USA.
- 2018 **An Empirical Study of Differentially-Private Analytics for High-Speed Network Data**, *CODASPY 2018 : Conference on Data and Application Security and Privacy*, Arizona, USA.
- 7-10 Nov, 2017 **A Game-Oriented Educational Tool for Location Privacy Topics (Demo Paper)**, *ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems*, California, USA.
- 22-24 Mar, 2017 **Differentially-Private Big Data Analytics for High-Speed Research Network Traffic Measurement**, *Best Poster Award at CODASPY 2017 : Conference on Data and Application Security and Privacy*, Scottsdale, Arizona.
- 16-20 Nov, 2015 **RIPE 71 Meeting, Access and poverty in the United States, Using open data to understand network performance through a socio-economic lens**, 16-20 November 2015, Bucharest. Romania
- Sep 2014 **Graphical Packet Generator - A solution for automatic discovery of the network topology and packet generation**, *11-13 Sept. 2014*, Chisinau, Moldova.

Projects and Professional Experience

- July 2018 - present - **Measurement Lab, Open Source Developer**.
Working on implementing a prediction system for internet speed and performance using open source data and Machine Learning techniques like neural networks.
- June 2018 - **Mozilla, Networking and Security Intern**.
Sep 2018 Analyzed requirements for a project that needed sensitive data collection and devised an algorithm that will conform to Differential Privacy security constraints.
- Nov 2017 - present - **ACM XRDS, Department Editor**.
Writing and curating technical articles on Computer Science and programming for the ACM XRDS magazine.
- May 2015 - **Measurement Lab, Outreachy Intern**.
Aug 2015 Analyzed the data provided by the M-Lab platform and the Census bureau to provide insight in the internet connectivity and internet availability for the USA's population. The results of the study were presented in RIPE71 Meeting that took place in November 2015.

Sep 2014 - **Luxoft Romania**, *Software Developer*.

Jun 2015 Developer for a new routing platform, implementing Cisco/Juniper enhancements on Lenovo/IBM x86 routers. Implemented vlan add and strip-vlan functionality for x86 routers. Used computer networks knowledge and C technology in development.

Grants/Scholarships

September 2018 **Grace Hopper Conference Scholar**, *Scholarship recipient of the Grace Hopper Conference for Women in Computing 2018*.

May 2018 **Randall Malbone Scholarship award winner**, *Malbone Scholarship offered by the University of Massachusetts for Graduate Students with exceptional record in helping the community*.

Jan 2018 - **Oracle Genzyme Fellowship**, *Recipient of the Oracle Doctoral Research Fellowship*.
May 2018

Sep 2015 - **University of Massachusetts Boston**, *Recipient of the head of the Computer Science department scholarship*.
Jun 2016

September 2014 **Google Travel and Conference Grants EMEA**, *INFORMATIK 2014: Big Data - Komplexitat meistern*, 22-27 Sept. 2014, Stuttgart. Germany

Other projects

2017 **Maths and English tutor**, *Maths (Algebra 1) and English tutor for a 10th grade student through the Enroot Cambridge organization. I am helping him with finding better ways to study as well as homework assignments and essay writing.*, Boston, Massachusetts.

2017 **Google IgniteCS Mentor**, *Part of a team of mentors who worked closely with high school students to teach them programming concepts as well as design and electrical engineering concepts. My role was in teaching the basics of programming in Python (build in types of data, control flow, collections and I/O).*, Boston, Massachusetts.

Feb 2016 **Northeast Collegiate Cyber Defense Competition**, *First place in Qualifying round of NECCDC. My role was to secure and mitigate attacks that were coming on the Database and Web servers as well as one Cisco Router. I deployed techniques that ranged from automatic checking for untrusted/unknown processes on a system, to configuring Linux and Cisco firewalls and breaching security holes.*, Boston, Massachusetts.

2017, 2014 **Learn IT, Girl!**, *Mentor during two different "Learn IT, Girl!" program editions, a program aimed to teach women how to code by pairing them with an experienced mentor. My help consisted in walking my mentees through tutorials, helping debug the application, and teaching them basic programming.*, Boston, Massachusetts.

Computer skills

- Java, C, JavaScript, Python, Pandas, PHP, HTML/CSS
- Networking administration, Network Protocols, Network Security
- SQL, Hadoop, HBase, Machine Learning, Deep Learning, Linux

Website

- Git - <https://github.com/elf11>

Interests

- Data Privacy, Data Analysis, Security, Machine Learning, Differential Privacy, Deep Learning, Computer Networks