Eugene Bagdasaryan
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SUMMARY:

4th year CS PhD Candidate interested in building privacy-preserving systems that apply ML to private data.

EDUCATION:

CornellTech, Cornell University *Aug 2016 – now*

PhD graduate candidate in Computer Science department. Focused on security and privacy in ML, Federated Learning, Differential Privacy, Recommender Systems. GPA: 3.7/4.0

Advised by Professors Deborah Estrin and Vitaly Shmatikov.

Bauman Moscow State Technical University, Russia *September 2009 – 2016*

June 2016 – Master's degree in Computer Science, diploma with honors. Focus: AI and Systems, GPA: 3.9/4.0

June 2013 – Bachelor's degree in Computer Science, diploma with honors. GPA: 4.0/4.0

WORK EXPERIENCE:

CornellTech, Cornell University *September 2016 – now*

Research Assistant (small data lab), Teaching Assistant (Systems Spring'17, Fall'18, Spring'20, Databases Fall'16)

Amazon, Seattle, WA *May 2018 – Aug 2018*

Applied Scientist intern at Alexa Personalization, developed multi-service recommendations engine

Cisco Systems, Moscow Innovation Center, Russia *September 2014 – July 2016*

QA Software Engineer at Cloud and Virtualization Group, focused on OpenStack Networking

Cisco Systems, Boston, MA *August 2013 – July 2014*

Software Engineering Intern at Collaboration Technology Group, worked on SocialMiner web-app

Deloitte Touché Tohmatsu Limited, Moscow, Russia *December 2012 – April 2013*

Intern at Enterprise Risk Services Department, worked on data analysis for audit department

npobaum.ru, Moscow, Russia *June 2012 – December 2012*

Research engineer at the early-stage startup working on distributed systems

Cinimex, Moscow, Russia *September 2011- March 2012*

Junior software developer at IBM partner company, developed project for banks using IBM WebSphere

PAPERS:

- **E.B.**, V. Shmatikov: "Blind Backdoors in Deep Learning Models" [in submission, arXiv]
- T. Yu, **E.B.**, V. Shmatikov: "Salvaging Federated Learning using Local Adaptation" [in submission, arXiv]
- **E.B.**, V. Shmatikov: "Differential Privacy Has Disparate Impact on Model Accuracy" [NeurIPS'19]
- **E.B.**, G. Berlstein, J. Waterman, E. Birrell, N. Foster, F. Schneider, D. Estrin: "Ancile: Enhancing Privacy for Ubiquitous Computing with Use-Based Privacy" [WPES'19]
- **E.B.**, A. Veit, Y. Hua, D. Estrin, V. Shmatikov: "How to Backdoor Federated Learning" [AISTATS'20]
- L.Yang, **E.B.**, J. Gruenstein, C.-K. Hsieh, D. Estrin: "OpenRec: A Modular Framework for Extensible and Adaptable Recommendation Algorithms" [WSDM '18]

AWARDS:

- 2019-2020 Digital Life Initiative Fellowship
- Bloomberg Data Immersion Day 2017 Fellowship
- 3x winner of the Vladimir Potanin Scholarship, in '11, '12 and '13
- Russian Government Scholarship for Science Research, Academic Council Faculty Fellowship

DEVELOPMENT SKILLS:

- *Languages*: Python (PyTorch, TensorFlow, NumPy), Java (Spark, Hadoop), JavaScript, C, C++