Alexandru TIFREA

tifreaa@inf.ethz.ch

SUMMARY

Passionate about theoretical aspects of machine learning and applications of it in representation learning and uncertainty estimation. Enrolled in a PhD program at ETH Zürich.

EDUCATION

PRESENT JAN 2020	PhD Student at ETH **Zürich**
MAR 2019 SEPT 2016	Master studies at ETH **Zürich** Focus on Machine Learning, Information Retrieval, Natural Language Understanding. GPA: 5.70/6.00
JUL 2016 OCT 2012	Undergraduate studies at POLITEHNICA **University of Bucharest** Computer Engineering and Computer Science Faculty of Automatic Control and Computer Science GPA: 9.76/10.00
JUN 2012 SEP 2008	High school studies at **Colegiul National "Dr. Ioan Mesota"**, Brasov Mathematics and Computer Science Track GPA 9.93/10.00

WORK EXPERIENCE

SEP 2019 - DEC 2019	Research Associate at GOOGLE BRAIN, Zürich Worked with Hartmut Maennel on outlier detection.
JUN 2019 - AUG 2019	Scientific Assistant at ETH, Zürich Data Analytics Lab, Prof. Thomas Hofmann.
SEP 2018 - MAR 2019	Software Engineering Intern at GOOGLE, Zürich Entity Names Team.
FEB - AUG 2018	Teaching Assistant at ETH Zürich Natural Language Understanding course.
SEP-DEC 2017	Software Engineering Intern at MICROSOFT, London Windows Search team.
JUN-SEP 2016	Software Engineering Intern at FACEBOOK, London Android UI Infrastructure team.
NOV 2015-JUN 2016	Research Intern at BITDEFENDER, Bucharest Machine Learning Research team.
JUN-SEP 2015	Software Engineering Intern at FACEBOOK, Seattle, WA Ads Payments Infrastructure team.
JUN-SEP 2014	Software Engineering Intern at MOZILLA, San Francisco, CA Firefox Electrolysis Team.
JUN 2014-JUN 2016	Teaching Assistant at POLITEHNICA UNIVERSITY OF BUCHAREST TA for the Numerical Methods and Introduction to Computer Programming courses.

JUN-SEP 2013	Software Developer at CGAL
	Part of the Google Summer of Code program.

PUBLICATIONS

Fourier networks for uncertainty estimates and out-of-distribution detection, H. Maennel, A. Tifrea
Submitted for ICLR 2020.

Poincaré GloVe: Hyperbolic Word Embeddings, A. Tifrea*, G. Bécigneul*, O-E. Ganea*
Presented at ICLR 2019.

Riemannian Word Embeddings, A. Tifrea, G. Bécigneul, O-E. Ganea, T. Hofmann
MSc Thesis.

Comparison of Machine Learning Techniques for Malware Detection, A. Tifrea, T. Berariu, T. Rebedea
BSc Thesis.

Opinion Summarization for Hotel Reviews, B. Marchis*, A. Tifrea*, M. Volmer*, T. Rebedea
in RoCHI 2015 Conference Volume, ISSN 2344-1690.

AWARDS AND SCHOLARSHIPS

FEB 2017	Qualified for the final stage of the Google Hashcode competition held in Paris, France.
SEPT 2016	Recipient of the Master Scholarship offered by ETH Zürich covering living expenses for the duration of the Master program.
MAR 2013	Silver Medal at the South Eastern European Mathematical Olympiad for University Students (SEEMOUS), Athens, Greece.
OCT 2012	Participation at the ACM South Eastern European Region Contest.
SEP 2008-JUN 2012	Four Bronze Medals at National Mathematics Olympiads.
SEP 2008-JUN 2012	Various awards at over 30 mathematics national competitions throughout high school.

TECHNICAL SKILLS

Natural Language Processing, Representation Learning, Machine Learning, Statistics, Numerical Analysis, Linear Algebra, Big Data, Databases, Functional Programming, Distributed Systems

OTHER PROJECTS AND INTERESTS

DEEP LEARNING RESEARCH PROJECT:	Worked under the supervision of Prof. Ce Zhang (ETH Zürich) and Heqing Huang (IBM Research New York) on a project which aimed to investigate possible approaches in defending against adversarial black-box attacks carried out on neural network models. The repository is private and can be made available upon request.
SENTIMENT ANALYSIS OF TWEETS:	Worked with a team of fellow students on a project that aimed to classify tweets based on sentiment. Our model won the 1st place in the Kaggle competition organized for the course. The paper we wrote can be accessed here
OTHER INTERESTS:	Open-Source, Hiking, Photography, Music