Aleksandar Bojchevski

Education

2016 – now **Ph.D. Candidate**, *Technical University of Munich*

Thesis: "Machine Learning on Graphs in the Presence of Noise and Adversaries". Focus on adversarial examples, representation learning, (deep) generative models, and anomaly detection.

2013 – 2015 **M.Sc. Informatics**, *Technical University of Munich*, GPA: 1.2, with high distinction. Thesis: "Semi-supervised learning for biomedical named-entity recognition".

2009 – 2013 **B.Eng. Informatics**, *Faculty of Computer Science and Engineering, Skopje*, GPA: 9.9/10 Thesis: "Personality prediction based on information from social networks".

Work experience

2019 – now **Project Leader**, Software Campus, Munich

Developing and leading a research project (100K EUR) on "Deep Representations for Evolving Networks". In collaboration with Huawei and TU Munich as part of the Software Campus program.

Sep – Dec 2018 **Research Intern**, *Google*, New York City

Worked with the graph mining team on: graph neural networks for large-scale semi-supervised classification, generative models for graphs, and adversarial attacks and defenses on graphs.

2010 – 2015 **Senior Software Engineer**, *BMG Universe*, Skopje

Responsibilities: architecture design, implementation, testing, and maintenance. Notable projects:

- Medical software (hearing aids): C++/CLI, .NET, Qt Framework, DLL drivers;
- Android mobile development: product monitoring dashboard; puzzle games (OpenGL ES)

2011 – 2013 **Android Developer**, *Adverta CS*, Skopje

Design and implementation of a content synchronization and scheduling system (Android, C#).

Technical skills

Languages Python, Java, C++, C#, MATLAB, R

Frameworks Tensorflow, PyTorch, Theano, Android, Qt, .NET, ASP, OpenGL

Databases Microsoft SQL Server, MySQL, MongoDB

Certifications and Seminars

- 2019 Software Campus: Innovation Management, Cultural Awareness and Decision Making, Convincing communication despite resistance and headwind, Self-Leadership
- 2018 CeDoSIA: Professional Scrum Master, Scientific Paper Writing
- 2012 Innovation Academy: Microsoft .NET 4: Web App. Development and Accessing Data

Awards and Scholarships

- 2017 2018 Microsoft Azure Research Award
- 2013 2015 DAAD (Deutscher Akademischer Austauschdienst) Scholarship
- 2010 2012 Honored student, Faculty of Computer Science and Engineering

2009 2nd place, 20th National competition in Informatics, Skopje

Teaching experience and Scientific community service

Teaching Assis. Machine Learning, Mining Massive Datasets, Large-Scale Graph Analytics and Machine

Learning, Robust Data Mining Techniques, Efficient Inference and Large-scale Machine Learning, Introduction to Software Development, Object-oriented Programming, Compilers

(Ext.) Review ECML PKDD '16, WWW '17, ICDM '18, KDD '19, DLG '19, GEM '19

Organization Macedonian National Competition in Informatics 2012 & 2013

Open source software

 $g2g/rsc/\dots \quad \textbf{Author.} \ \ \text{Code on GitHub (https://github.com/abojchevski) accompanying several published accompanying s$

cations: Gaussian node embdeddings, graph poisoning, robust spectral clustering, etc.

nala/nalaf Core contributor. nalaf (Python): NLP framework for entity recognition and relationship

extraction. nala (Python): Natural language mutation mention extraction.

Languages

Macedonian Native language

English Bilingual proficiency

German Intermediate

TOEFL iBT 114/120

B1 level (CEFR)

Selected publications

NeurIPS 2019 Bojchevski A, Günnemann S. Certifiable Robustness to Graph Perturbations.

MLG 2019 **Bojchevski A**, Klicpera J, Perozzi B, Blais M, Kapoor A, Lukasik M, Günnemann S. Is PageRank All You Need for Scalable Graph Neural Networks?

ICML 2019 **Bojchevski A**, Günnemann S. Adversarial Attacks on Node Embeddings via Graph Poisoning.

ICLR 2019 Klicpera J, **Bojchevski A**, Günnemann S. Predict then Propagate: Graph Neural Networks meet Personalized PageRank.

ICML 2018 **Bojchevski A**, Shchur O, Zügner D, Günnemann S. NetGAN: Generating Graphs via Random Walks.

ICDMW 2018 Shchur O, Bojchevski A, ..., Saber Y. Anomaly Detection in Car-Booking Graphs.

ICLR 2018 **Bojchevski A**, Günnemann S. Deep Gaussian Embedding of Graphs: Unsupervised Inductive Learning via Ranking.

AAAI 2018 **Bojchevski A**, Günnemann S. Bayesian Robust Attributed Graph Clustering: Joint Learning of Partial Anomalies and Group Structure.

Bioinf. 2018 Cejuela JM, Vinchurkar S, ..., **Bojchevski A**, ..., Rost B. LocText: relation extraction of protein localizations to assist database curation.

KDD 2017 **Bojchevski A**, Matkovic Y, Günnemann S. Robust Spectral Clustering for Noisy Data: Modeling Sparse Corruptions Improves Latent Embeddings.

Bioinf. 2017 Cejuela JM, **Bojchevski A**, Uhlig C, Bekmukhametov R, Kumar Karn S, ..., Rost B. nala: text mining natural language mutation mentions.

Munich, September 23, 2020