Philip Tovstogan

Curriculum Vitae

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Education

2018–2022 **Ph.D.** (in-progress), Music Technology Group, Universitat Pompeu Fabra, Barcelona, Spain.

Supervisors: Xavier Serra, Dmitry Bogdanov

Thesis: Exploration of Music Collections with Audio Embeddings

2017–2018 **M.S.**, Sound an Music Computing, Universitat Pompeu Fabra, Barcelona, Spain, Grade: 9.0/10.

Supervisors: Dmitry Bogdanov, Alastair Porter

Thesis: Exploring Music Similarity with AcousticBrainz

2012–2015 M.S., Electrical Engineering and Computer Science International Graduate Program, National Yang Ming Chiao Tung University, Hsinchu, Taiwan, Grade: 90.1/100. Supervisor: Hsu-Feng Hsiao

Thesis: Optimization of Video Streaming Using Video Quality Estimation and LMRC Channel Coding

2008–2012 **B.S.**, Computer Science, Multimedia & Network Engineering Program, National Yang Ming Chiao Tung University, Hsinchu, Taiwan, Grade: 90.2/100.

Skills

Knowledge Deep learning, software engineering, music auto-tagging models, recommendation systems, user-centric evaluation, audio signal processing, system design

Tech Python, PyTorch (Lightning), Git, Linux, Docker, Flask, REST API, AWS, Post-greSQL, FastAPI, GitHub Actions, Google Cloud, JS

Work Experience

2022–now **Data Engineer**, *Utopia Music*, Zug, Switzerland.

Music recommendations, auto-tagging, data pipelines

2021 Researcher, Jamendo, Luxembourg, (internship).

Track-to-track music recommendations based on music embeddings

2018–2021 **Predoctoral researcher**, *Music Technology Group, Universitat Pompeu Fabra*, Barcelona, Spain.

2018 **Software Developer**, *Music Technology Group, Universitat Pompeu Fabra*, Barcelona, Spain, (internship).

• Freesound.org: bugfixes and new features

2017 **Software Developer**, *LyraVR*, Taipei, Taiwan.

o Cross-platform support: HTC Vive, Oculus Rift

- 2016–2017 **R&D Engineer**, *Bovia*, Zhubei, Taiwan.
 - Implementation of Flask-Restful API to control linux system configuration
 - R&D of CI pipeline for firmware building for multiple embedded platforms
 - Establishing startup infrastructure, system administration and support
- 2014–2016 **Software Developer**, Information and Communications Research Laboratories, Industrial Technology Research Institute, Hsinchu, Taiwan.
 - R&D of various projects based on BeagleBone Black
- 2012–2014 **Research and Teaching Assistant**, *Network and Information Processing Lab, National Yang Ming Chiao Tung University*, Hsinchu, Taiwan.
- 2011–2012 **Software Developer**, *Changing Tec*, Hsinchu, Taiwan, (internship).

Publications (selected)

- 2021 MediaEval 2021: Emotion and Theme Recognition in Music using Jamendo. Tovstogan, P., Bogdanov, D., and Porter, A. Working Notes Proceedings of the MediaEval 2021 Workshop, Online
- 2020 **Web Interface for Exploration of Latent and Tag Spaces in Music Auto- Tagging.** Tovstogan P., Serra X., and Bogdanov D. *Machine Learning for Media Discovery Workshop (ML4MD), International Conference on Machine Learning (ICML)*, Vienna, Austria
- 2019 The MTG-Jamendo Dataset for Automatic Music Tagging. Bogdanov, D., Won M., Tovstogan P., Porter A., and Serra X. Machine Learning for Music Discovery Workshop (ML4MD), International Conference on Machine Learning (ICML), Long Beach, CA, United States

Awards and Honors (selected)

- 2018–2021 Marie Skłodowska-Curie Fellowship (MIP-Frontiers)
 - 2018 Best Project for Music Streaming Services from HAMR@ISMIR2018
- 2009–2013 Golden Bamboo Scholarship (average grade > 85/100, 8 semesters)
- 2009–2012 Academic Achievement Award (top 3 students, 4 semesters)
 - 2012 Outstanding New Student Scholarship (1 semester)

Other relevant experience

- 2020–2021 Reviewer for International Society in Music Information Retrieval (ISMIR) conference
- 2019–2021 Member of organizing team of *Emotions and Themes in Music* task within Multimedia Benchmarking Initiative (MediaEval)
 - 2021 Papers chair and member of organizing committee for Web Audio Conference (WAC)

Languages

Ukrainian Native

Russian Native

English Fluent TOEFL 113 iBT @ 2013

Spanish **Advanced**Mandarin **Intermediate**

Conversationally fluent Professional capability