Ondřej Texler

Contact Information

Department of Computer Graphics and Interaction
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Personal Data

Date of birth: 9th October 1992
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Education

Doctoral degree study (PhD) **2018 – Present**
Computer Graphics, Faculty of Electrical Engineering, Czech Technical University in Prague.
Dissertation Thesis: Example-based Style Transfer.

Master degree study (MSc) **2016 – 2018**
Computer Science, Faculty of Information Technology, Czech Technical University in Prague.
Master Thesis: Digital Image Processing and Image Stylization.

Bachelor degree study (BSc) **2012 – 2015**
Computer Science, Faculty of Information Technology, Czech Technical University in Prague.
Bachelor Thesis: Architecture design and implementation of a large software system.

High school **2004 – 2012**
Mathematics, Physics, and Descriptive Geometry specialization, Gymnasium of Christian Doppler.

Professional Experience

Intern Research Scientist, Snap Inc., Los Angeles, California **7/2019 – 10/2019**
Research & Development. Research of new techniques on training generative adversarial networks for style transfer tasks; focused on a scenario where a minimal amount of data is available, and an interactive response is required. Furthermore, developing a shader-based real-time stylization for human portraits.

Remote Collaboration, Adobe Research, USA **9/2017 – 12/2019**
Research & Development. Remote collaboration on several research projects, publications, and tech transfer project. Computer graphics; patch-based style transfer; neural-network-based style transfer.

Intern Research Scientist, Adobe Research, Seattle, Washington. **7/2018 – 10/2108**
Research & Development. Combining neural-network-based and patch-based style transfer methods. Chunk-based style transfer method with a focus on real-time performance.

Intern Research Scientist, Adobe Research, San Jose, California **9/2017 – 12/2107**
Research & Development. Guiding patch-based style transfer method using convolutional neural networks, image harmonization, and histogram optimization. Integrating developed style transfer method into Adobe Photoshop.

Software Architect and Developer, Dynavix, Prague, Czechia **5/2014 – 9/2017**
Software Architecture & Development. The navigation application for smartphones, tablets, and PND devices. C++, Java (Android), JavaEE, Objective-C (iOS), C#.

Software Developer, World of Warcraft game server, Prague, Czechia **2/2013 – 5/2014**
Software & Database Development. The World of Warcraft game server. Extending game mechanics, scripting artificial intelligence, data-mining. C++, C#.

Publications

O. Texler, D. Futschik, J. Fišer, M. Lukáč, J. Lu, E. Shechtman, and D. Sýkora: **Arbitrary Style Transfer Using Neurally-Guided Patch-Based Synthesis.** In *Computers & Graphics* (Elsevier, January 2020)

O. Jamriška, Š. Sochorová, **O. Texler**, M. Lukáč, J. Fišer, J. Lu, E. Shechtman, and D. Sýkora: **Stylizing Video by Example.** In *ACM Transactions on Graphics 38(4):107* (SIGGRAPH 2019, Los Angeles, California, July 2019)

O. Texler, J. Fišer, M. Lukáč, J. Lu, E. Shechtman, and D. Sýkora: **Enhancing Neural Style Transfer using Patch-Based Synthesis.** In *Proceedings of the 8th ACM/EG Expressive Symposium, pp. 43–50* (Expressive 2019, Genoa, Italy, May 2019)

D. Sýkora, O. Jamriška, **O. Texler**, J. Fišer, M. Lukáč, J. Lu, and E. Shechtman: **StyleBlit: Fast Example-Based Stylization with Local Guidance.** In *Computer Graphics Forum 38(2):83–91* (Eurographics 2019, Genoa, Italy, May 2019)

O. Texler and D. Sýkora: **Example-Based Stylization of Navigation Maps on Mobile Devices.** In *Proceedings of the 22nd Central European Seminar on Computer Graphics.*, (CESCG 2018, Smolenice, Slovakia, 2018)

Computer Science & Programming Skills

Academic / Research & Development
4 years of conducting research and publishing of scientific papers.

Computer Graphics / Computer Vision
4 years of academic and practical experience (shaders, CUDA, OpenCV).

Deep Learning / Convolutional Neural Networks / GANs
2 years of practical and theoretical experience (PyTorch, NumPy, SciPy).

Software Architecture & Development
6 years of practical experience.

C/C++11/14
Proficient. 7 years of practical experience.

Java, Android
Proficient. 6 years of experience in Java; 5 years of experience in Android.

Python
Advanced. 2 year of practical experience; machine learning, data-science.

C#, Objective-C
Intermediate. 2 years of practical experience.

Student Supervision

CTU in Prague:
A. Moravcová (MSc), A. Sternwaldová (MSc)

National Languages

Czech language: *Native speaker*
English language: *Fluent*
Russian language: *Beginner*