

Dr. Yulia Gryaditskaya

Senior research fellow, CVSSP, UK

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Employment

- 02/2020– **CVSSP**, Surrey, UK, Senior research fellow.
present Line manager: Dr. Yi-Zhe Song
- 02/2017– **Inria**, Sophia Antipolis, France, Postdoctoral researcher.
01/2020 Advisor: Dr. Adrien Bousseau
- 04/2014 – **Technicolor R & D**, Rennes, France, Research Internship.
09/2014 Advisor: Dr. Erik Reinhard
- 11/2012 – **Max Planck Institute for Informatics**, Saarbrücken, Germany, Ph.D candidate.
12/2016 Supervisors: Dr. Erik Reinhard, Prof. Dr.-in.z. Karol Myszkowski, Prof. Dr. Hans Peter-Seidel

Education

- 11/2012 – **Ph.D. in Computer Graphics and Vision**, Max Planck Institute for Informatics,
12/2016 Saarland University, Saarbrücken, Germany, *Magna cum laude*.
Dissertation title: ‘High Dynamic Range Imaging: Problems of Video Exposure Bracketing, Luminance Calibration and Gloss Editing’
- 09/2007 – **Diploma in Applied Mathematics and Computer Science**, Lomonosov Moscow
06/2012 State University, Russia, Scholarship, *Excellent*.
Thesis title: ‘Truncated sequential quadratic programming method for degenerate optimization problems’ Advised by Prof. Dr. Alexey F. Izmailov

Additional education

- 2000 – 2004 **Art school**, Zhukovsky, Moscow region, Russia.

Publications

Journal publications

- 2020 **Towards Practical Sketch-based 3D Shape Generation: The Role of Professional Sketches**,
IEEE TCSVT.
Y. Zhong, Y. Qi, **Y. Gryaditskaya**, H. Zhang, YZ. Song
- 2020 **Pixelor: A Competitive Sketching AI Agent. So you think you can beat me?**,
ACM Trans. on Graph. (Proc. of SIGGRAPH Asia),
AK. Bhunia, A. Das, UR. Muhammad, Y. Yang, T. Hospedales, T. Xiang, **Y. Gryaditskaya**,
Yi-Zhe Song.
(Code available)
- 2020 **Lifting Freehand Concept Sketches into 3D**,
ACM Trans. on Graph. (Proc. of SIGGRAPH Asia),
Y. Gryaditskaya, F. Hahnlein, C. Liu, A. Scheffer and A. Bousseau.
(Code available)
- 2019 **OpenSketch: A Richly-Annotated Dataset of Product Design Sketches**,
ACM Trans. on Graph. (Proc. of SIGGRAPH Asia),
Y. Gryaditskaya, M. Sypesteyn, J.W. Howtjijzer, S. Pont, F. Durand and A. Bousseau..
(Code available)

- 2015 **Motion Aware Exposure Bracketing for HDR video**,
Computer Graphics Forum (Proc. EGSR).
Y. Gryaditskaya, T. Pouli, E. Reinhard, K. Myszkowski, and H.-P. Seidel.
- 2014 **Sky Based Light Metering for HDR Images**,
Computer Graphics Forum (Proc. Pacific Graphics).
Y. Gryaditskaya, T. Pouli, E. Reinhard, and H.-P. Seidel
- Conference publications
- 2020 **Towards 3D VR-Sketch to 3D Shape Retrieval**,
Proc. of 3DV, (Oral),
L. Luo, Y. Gryaditskaya, Y. Yang, T. Xiang, YZ. Song .
(Code available)
- 2020 **Deep Sketch-Based Modeling: Tips and Tricks**,
Proc. of 3DV, (Spotlight),
Y. Zhong, Y. Gryaditskaya, H. Zhang, YZ. Song .
(Code available)
- 2019 **Bitmap or Vector? A study on sketch representations for deep stroke segmentation**,
Journées Françaises d'Informatique Graphique et de Réalité Virtuelle.
F. Hahnlein, Y. Gryaditskaya and A. Bousseau
- 2016 **Gloss Editing in Light Fields**,
VMV.
Y. Gryaditskaya, B. Masia, P. Didyk, K. Myszkowski, and H.-P. Seidel.
- Patents
- 2017 **Method for generating an HDR image of a scene based on a tradeoff between brightness distribution and motion.**,
US Patent 9,648,251.
T. Pouli, Y. Gryaditskaya, E. Reinhard
- Thesis
- 2017 **High dynamic range imaging: problems of video exposure bracketing, luminance calibration and gloss editing**.
Y. Gryaditskaya

Released datasets

- 2020 **SlowSketch**, 1700 sketches from 12 participants of 20 categories, where the participants were asked to target early sketch recognition.
- 2020 **ProSketch-3DChair**, A dataset of 1500 chair sketches by professional artists: front, side and 3/4 viewpoints.
- 2020 **3D VR sketches**, 139 chair and 28 bathtub 3D VR sketches by novices.
- 2020 **OpenSketch++**, Additional vector concept sketches.
- 2019 **OpenSketch**, A richly-annotated dataset of product design sketches.
- 2014 **Calibrated HDR Images**, A calibrated set of HDR images, with visible sky regions and color checker.

Professional Activities

PC Member

Computational Visual Media Conference (CVM) 2020

Reviewer

ACM TOG, TVCG, SIGGRAPH, SIGGRAPH Asia, Transactions on Image Processing, Eurographics, Pacific Graphics, TCSVT, Computers & Graphics, Journal of Electronic Imaging, Journal on Image and Video Processing, Multimedia Systems, CAVW

Students

- 2020-present **Anran Qi**, (*coadvised with Yi-Zhe Song*), PhD student.
2020-present **Ling Luo**, (*coadvised with Yi-Zhe Song*), PhD student.
2020-present **Yue Zhong**, (*coadvised with Yi-Zhe Song*), PhD student.
2019 **Felix Hähnlein**, (*coadvised with Adrien Bousseau*), Research Internship: 'A study on sketch representations for deep stroke segmentation'.
2018 **Adele Saint-Denis**, (*coadvised with Adrien Bousseau*), Research Internship: 'Non-photorealistic rendering'.
2017 **Marina Menghetti**, (*main adviser Adrien Bousseau*), Research Internship: 'Strokes extraction from input video'.
2015 **Juliette Pelletier**, Engineering Internship: 'HDR Video Capture on a Mobile Device'.

Tutoring

- 2015, 2016 Realistic Image Synthesis: HDR & Tone Mapping

Invited talks

- 12/2020 Christmas Colloquium on Computer Vision, Moscow, Russia
02/2021 University of Bath, UK

Programming & Software Skills

MatLab, C/C++, Python, HTML/nodejs, Qt, libigl, WebGL, Java, LaTeX, Blender, PBRT, Adobe Photoshop/Illustrator.

Languages

English: fluent
French: intermediate
German: basics
Russian: mother tongue

Personal Interests

Drawing, reading, travelling, sports (biking, running, dancing, yoga, skiing/snowboarding, climbing, skateboarding and a few others).

February 15, 2021