

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 Line manager: 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, Awarded a 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

Program/Paper Committee Member

- 2021 SIGGRAPH Asia (Similar to Area Chair in vision conferences)
- 2021 3DV
- 2020 Computational Visual Media Conference (CVM)

Organizer

- 2021 1st Workshop on Sketching for Human Expressivity (SHE) ICCV 2021
- 2021 Weekly group meetings for more than 20 attendees

Reviewer

- Conferences SIGGRAPH, SIGGRAPH Asia, Eurographics, Pacific Graphics, ICCV, VMV
- Journals ACM TOG, CAVW, Computers & Graphics, JEI, JVIP, Multimedia Systems, TCSVT, TIP, TVCG

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.
- 2021 **Harichander Singaravelu**, Master student in Computer Science.
- 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'.

Invited talks

- 06/2021 Autodesk, UK
- 02/2021 University of Bath, UK
- 12/2020 Christmas Colloquium on Computer Vision, Skolkovo, Moscow, Russia

Teaching

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

Other

- 2014-2016 Saarland University library representative for the Graphics Department of MPI-inf, Germany. Responsibilities: review and compilation of references for biennial D4 progress reports, information communication on Open Access publishing, books, etc.

Programming & Software Skills

- Languages In-usage: MatLab, C/C++, Python, HTML/Javascript, Experience: Java
- Tools Experience: Qt, libigl, WebGL, nodejs, PBRT, Blender-scripting

Languages

- English: fluent
- French: intermediate
- Russian: mother tongue

Personal Interests

Sketching and painting, architecture, city planning, reading, traveling, hiking, sports.

July 13, 2021