Dr.Yulia Gryaditskaya

Senior research fellow, CVSSP, UK

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Employment

02/2020– present **CVSSP**, *Surrey, UK*, Senior research fellow.
Line manager: Dr. Yi-Zhe Song

02/2017– 01/2020 **Inria**, *Sophia Antipolis, France*, Postdoctoral researcher.
Advisor: Dr. Adrien Bousseau

04/2014 – 09/2014 **Technicolor R & D**, *Rennes, France*, Research Internship.
Advisor: Dr. Erik Reinhard

11/2012 – 12/2016 **Max Planck Institute for Informatics**, *Saarbrücken, Germany*, Ph.D candidate.
Supervisors: Dr. Erik Reinhard, Prof. Dr-in.z. Karol Myszkowski, Prof. Dr. Hans Peter-Seidel

Education

11/2012 – 12/2016 **Ph.D. in Computer Graphics and Vision**, *Max Planck Institute for Informatics, 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 – 06/2012 **Diploma in Applied Mathematics and Computer Science**, *Lomonosov Moscow 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. Howtijzer, 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

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).

January 4, 2021