# Daniel Meister

## Contact Information


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|---|---|
| Address | 7-3-1, Hongo, Buknyo-ku, Tokyo, Japan |
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## Education

Czech Technical University in Prague:

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| 2014 – 2018 | Ph.D. in Information Science and Computer Engineering |
| 2012 – 2014 | M.Sc. in Computer Graphics and Interaction |
| 2009 – 2012 | B.Sc. in Software Engineering |

## Work Experience

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|---|---|
| 2019/9 – Present | Postdoctoral Researcher, The University of Tokyo |
| 2017/11 – 2019/8 | Researcher, Czech Technical University in Prague |
| 2014/10 – 2017/3 | External Developer (Interactive Rendering System), Škoda Auto |

## Computer Skills

C/C++, CUDA, OpenGL, SIMD, Matlab, Python, Python, Pycharm, Bash, LaTeX

## Languages

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| Czech | Native Language |
| English | Fluent |
| Japanese | Intermediate (JLPT N3) |
| French | Basic Knowledge |
| Spanish | Basic Knowledge |

## Research Interests

Data Structures for Ray Tracing, Real-Time Ray Tracing, GPGPU, Parallel Computing, Global Illumination

## Professional Visits Abroad

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|---|---|
| 2017 | National Institute of Informatics, Japan (5 months) |
| 2014 | Vienna University of Technology, Austria (1 month) |

## Teaching

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|---|---|
| 2018 | Algorithms of Computer Graphics B(E)4M39APG (English) |
| 2015 | Algorithms of Computer Graphics A4M39APG (Czech) |

## Awards

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| 2019 | JSPS Postdoctoral Fellowship (standard) |
| 2019 | Finalist of Antonín Svoboda Award for the Best Ph.D. Thesis |
| 2019 | Dean's Award (Outstanding Dissertation, Doctoral course) |

## Professional Society Membership

Upsilon Pi Epsilon Honor Society

# Publications

Daniel Meister, Jakub Bokšanský, Michael Guthe, and Jiří Bittner. On Ray Reordering Techniques for Faster GPU Ray Tracing. In *Proceedings of Symposium on Interactive 3D Graphics and Games*, 2020

J. Hendrich, A. Pospíšil, D. Meister, and J. Bittner. Ray Classification for Accelerated BVH Traversal. *Computer Graphics Forum (Proceedings of EGSR)*, 38(4):49–56, 2019

Daniel Meister and Jiří Bittner. Parallel Reinsertion for Bounding Volume Hierarchy Optimization. *Computer Graphics Forum (Proceedings of Eurographics)*, 37(2):463–473, 2018

Daniel Meister and Jiří Bittner. Parallel Locally-Ordered Clustering for Bounding Volume Hierarchy Construction. *IEEE Transactions on Visualization and Computer Graphics*, 24(3):1345–1353, 2018

Jakub Hendrich, Daniel Meister, and Jiří Bittner. Parallel BVH Construction Using Progressive Hierarchical Refinement. *Computer Graphics Forum (Proceedings of Eurographics)*, 36(2):487–494, 2017

Daniel Meister and Jiří Bittner. Parallel BVH Construction Using $k$-means Clustering. *Visual Computer (Proceedings of Computer Graphics International)*, 32(6-8):977–987, 2016

Jiří Bittner and Daniel Meister. T-SAH: Animation Optimized Bounding Volume Hierarchies. *Computer Graphics Forum (Proceedings of Eurographics)*, 34(2):527–536, 2015