

## ABOUT

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I am a Ph.D. student in computer science at Harvard University, advised by Hanspeter Pfister. I am deeply interested in data visualization, biomedical imaging, and computer vision. My latest research focuses on applications of data visualization in neuroscience and climate sciences. When I am not prototyping new ideas, I enjoy rowing, reading philosophy, hiking, or just being in nature.

## EDUCATION

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<b>Harvard University</b> Ph.D. in Computer Science, Advisor: Prof. Hanspeter Pfister – Focus: Data Visualization, Computational Neuroscience	Cambridge, MA 2021–2027
<b>TU Wien</b> M.Sc. in Visual Computing, Advisor: Prof. Eduard Gröller – Focus: Data Visualization, Biomedical Imaging, Computer Vision – GPA: 1.1/1.0	Vienna, Austria 2019–2021
<b>TU Wien</b> B.Sc. with Honors in Medical Informatics, GPA: 1.45/1.0 – Thesis: Flow Visualization on Curved Manifolds – Among the top 5% of all computer science students	Vienna, Austria 2015–2019

## EXPERIENCE

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<b>Harvard University</b> Research Fellow with Prof. Hanspeter Pfister – Scalable Comparison and Neighborhood Analysis of Nanoscale Brain Structures – Development and design of a visual analysis tool to compare high resolution EM data	Cambridge, MA 02/2020 - 08/2020
<b>Brainlab AG</b> Research Intern – Mixed Reality for 3D Medical Visualization – Explored the potential of Mixed Reality in a clinical usecase	Munich, Germany 06/2019 - 08/2019
<b>King Abdullah University of Science &amp; Technology (KAUST)</b> Research Intern with Prof. Markus Hadwiger – Observer Relative Flow Visualization in Curved Spaces – Co-authored a publication which won the SciVis Best Paper Award at IEEE VIS 2020	Thuwal, Saudi Arabia 02/2019 - 05/2019
<b>Brainlab AG</b> Research Intern – Path Tracing for Realtime 3D Medical Visualization – Worked on intraoperative navigation for neurosurgery	Munich, Germany 08/2018 - 01/2019

## PUBLICATIONS

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- [1] P. Rautek, M. Mlejnek, J. Beyer, J. Troidl, H. Pfister, T. Theußl, and M. Hadwiger, “Objective observer-relative flow visualization in curved spaces for unsteady 2d geophysical flows”, *IEEE Transactions on Visualization and Computer Graphics*, 2020.

## TEACHING

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- **Teaching Fellow** at TU Wien Fall 2020  
*Selected Chapters from Medical Visualization*
- **Teaching Fellow** at TU Wien Spring 2017, Spring 2018  
*Introduction to Visual Computing*
- **Teaching Fellow** at TU Wien Fall 2017  
*Introduction to Computer Engineering*

## SKILLS

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- **Coding:** C++, Python, Matlab, HTML, CSS, Java-Script, Java
- **Tools:** Unity, QT, CMake, Latex

## LANGUAGES

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English, German, Latin

## SCHOLARSHIPS AND AWARDS

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- Best SciVis Paper, IEEE VIS 2020 (among the best 3 papers out of 211 accepted papers) 2020
- Scholarship, Austrian Marshall Plan Foundation (9.100\$) 2020
- Bachelor with Honors, TU Wien (among the top 5% of CS students at TU Wien) 2020
- Short-term grant for scientific work abroad, TU Wien (3.100\$) 2020
- Merit Based Scholarship, TU Wien (1.000\$) 2018

## REFERENCES

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- **Eduard Gröller**, Associate Professor, TU Wien  
*groeller@cg.tuwien.ac.at*
- **Markus Hadwiger**, Associate Professor, KAUST  
*markus.hadwiger@kaust.edu.sa*
- **Johanna Beyer**, Research Associate, Harvard University  
*jbeyer@g.harvard.edu*