

ABOUT

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

EDUCATION

Harvard University Ph.D. in Computer Science, Advisor: Prof. Hanspeter Pfister – Focus: Data Visualization, Computational Neuroscience	Cambridge, MA 2021–2027
TU Wien 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
TU Wien 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

Harvard University Research Assistant with Prof. Hanspeter Pfister – Visualization of Large-Scale Biomedical Data – Towards Efficient and Scalable Visual Analysis Tools for Connectomics	Cambridge, MA 09/2021 - present
King Abdullah University of Science & Technology (KAUST) 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
Brainlab AG Research Intern – Path Tracing for Realtime 3D Medical Visualization – Mixed Reality for 3D Medical Visualization	Munich, Germany 08/2018 - 01/2019
Jetsam GmbH Software Development Intern – Developed a face recognition system for marketing purposes	Regensburg, Germany 08/2017 - 09/2017

PUBLICATIONS

- [1] J. Beyer*, **J. Troidl***, S. Boorboor, M. Hadwiger, A. Kaufman, and H. Pfister, “[A Survey of Visualization and Analysis in High-Resolution Connectomics](#)”, in *Computer Graphics Forum*, Wiley Online Library, vol. 41, 2022, to appear. **indicates equal contribution.*
- [2] **J. Troidl**, C. Cali, E. Gröller, H. Pfister, M. Hadwiger, and J. Beyer, “[Barrio: Customizable Spatial Neighborhood Analysis and Comparison for Nanoscale Brain Structures](#)”, *Computer Graphics Forum (Proceedings Eurographics/IEEE Symposium on Visualization, Eurovis 2022)*, vol. 41, no. 3, to appear, 2022.
- [3] P. Velicky, E. Miguel, J. M. Michalska, D. Wei, Z. Lin, J. F. Watson, **J. Troidl**, J. Beyer, Y. Ben-Simon, C. Sommer, *et al.*, “[Saturated reconstruction of living brain tissue](#)”, *bioRxiv*, 2022.
- [4] 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

- **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

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

LANGUAGES

English, German

SCHOLARSHIPS AND AWARDS

- 6-year PhD fellowship, Harvard University 2021
- 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

- **Hanspeter Pfister**, An Wang Professor of Computer Science, Harvard University
pfister@g.harvard.edu
- **Eduard Gröller**, Full Professor, TU Wien
groeller@cg.tuwien.ac.at
- **Markus Hadwiger**, Full Professor, KAUST
markus.hadwiger@kaust.edu.sa