

Alex Trevithick

Education

- UC San Diego**, La Jolla, CA 2021-
PhD Student in CSE
Advisor: Ravi Ramamoorthi
NSF Graduate Research Fellowship
Jacobs School of Engineering Fellowship
- Williams College**, Williamstown, MA 2017 – 2021
Bachelor of Arts in Computer Science and Mathematics, *Magna Cum Laude*
GPA: 3.94
- University of Oxford**, Oxford, UK 2019 – 2020
Williams Exeter Programme at Oxford
GPA: 4.0
- The Hotchkiss School**, Lakeville, CT 2015 - 2017
Cum Laude

Publications

- Trevithick, A.**, Chan, M., Stengel, M., Chan, E., Liu, C., Yu, Z., ... & Nagano, K. (2023). Real-Time Radiance Fields for Single-Image Portrait View Synthesis. *ACM Transactions on Graphics (TOG)*, 42(4), 1-15.
- Stengel, M., Nagano, K., Liu, C., Chan, M., **Trevithick, A.**, De Mello, S., ... & Luebke, D. (2023). AI-Mediated 3D Video Conferencing. In *ACM SIGGRAPH 2023 Emerging Technologies* (pp. 1-2).
- Gu, J., **Trevithick, A.**, Lin, K. E., Susskind, J. M., Theobalt, C., Liu, L., & Ramamoorthi, R. (2023, July). Nerfdiff: Single-Image View Synthesis with NeRF-guided Distillation from 3D-Aware Diffusion. In *International Conference on Machine Learning* (pp. 11808-11826). PMLR.
- Lin, K. E., **Trevithick, A.**, Cheng, K., Sarkis, M., Ghafoorian, M., Bi, N., ... & Ramamoorthi, R. (2023, July). PVP: Personalized Video Prior for Editable Dynamic Portraits using StyleGAN. In *Computer Graphics Forum* (Vol. 42, No. 4, p. e14890).
- Trevithick, A.**, & Yang, B. (2021). GRF: Learning a General Radiance Field for 3D Representation and Rendering. In *Proceedings of the IEEE/CVF International Conference on Computer Vision* (pp. 15182-15192).

Research Interests

3D Computer Vision, Neural Rendering, Generative Models

Invited Talks

Google Labs, May 2023

UCSD Visual Computing Retreat, May 2023

NVIDIA Graphics Forum, February 2023

Reviewing

CVPR (2023)

ICCV (2023)

SIGGRAPH Asia (2023)

Transactions on Image Processing (2023)

Research Experience

Research Intern – NVIDIA Research	June 2023 -
Research Intern – NVIDIA Research	June 2022 – May 2023
Research Intern – Max Planck Institute for Informatics	May – September 2021
Summer Research Fellow – Williams College	2020
Wilmers Fellow – University of Oxford	2020
REU Researcher – Washington State University	2019
High School Honors Science Program – Michigan State University	2016

Awards

2022	NSF Graduate Research Fellowship
2022	Honorable Mention for NDSEG Fellowship
2021	Jacobs School of Engineering Fellowship from UC San Diego
2021	Elected to Phi Beta Kappa and Sigma Xi at Williams College
2020	Robert G. Wilmers Jr. 1990 Fellowship
2020	Williams College Summer Research Fellowship
2019	John Houghton Harris Memorial Scholarship
2018	Alumni-Sponsored Internship Program Grant
2017	Amherst College Schupf Research Scholarship for \$20,000 (nominated)

Teaching Experience

Teaching Assistant in Measure Theory & Hilbert Spaces	2020
Teaching Assistant in Introduction to Computer Science	2019
Teaching Assistant in Computational Linear Algebra	2018

Industry Experience

Data Analyst Intern – Haystack Search, Brooklyn, NY	2018
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References

Ravi Ramamoorthi, Professor of Computer Science at UC San Diego, ravir@ucsd.edu

Bo Yang, Assistant Professor at The Hong Kong Polytechnic University, bo.yang@cs.ox.ac.uk

Koki Nagano, Senior Research Scientist at NVIDIA, knagano@nvidia.com