Arman Maesumi .

arman_maesumi@brown.edu · armanmaesumi.github.io

EDUCATION Brown University

Sept '21 - Present GPA: 4.00

Doctor of Philosophy, Computer Science Advisor: Professor Daniel Ritchie

The University of Texas at Austin Bachelor of Science, Computer Science

Aug '18 - Aug '21

EXPERIENCE

Adobe Research - San Francisco, CA

May '23 - Dec '23

Research Scientist Intern, Mentors: Noam Aigerman, Thibault Groueix, Vova Kim (Ongoing) Formulated a new neural architecture for learning on surfaces.

Adobe Research - Remote

May '22 - Dec '22

Research Scientist Intern, Mentors: Sören Pirk, Matt Fisher, Vova Kim

Developed a neural representation of procedural noise for inverse material modeling.

Brown University

Sept '21 - Present

Research Assistant, Advisor: Prof. Daniel Ritchie

UT Austin · Computational Visualization Center (CVC)

Aug '20 - Dec '20

Undergraduate Researcher, Advisor: Prof. Chandrajit Bajaj

Synthesized adversarial textures that robustly cloak humans from object detectors.

UT · Department of Computer Science

May '19 - June '20

Undergraduate Researcher, Advisor: Prof. Chandrajit Bajaj

Trained neural network to evaluate chess positions, and created the largest public dataset of labeled chess positions (at the time).

UT San Antonio · **Department of Mathematics**

Aug '17 - May '18

Undergraduate Researcher, Advisor: Prof. Cody Patterson

Derived the probability density function and moments of the area of stochastically generated inscribed triangles.

PUBLICATIONS

One Noise to Rule Them All: Learning a Unified Model of Spatially-Varying Noise Patterns. Arman Maesumi, Dylan Hu, Krishi Saripalli, Vladimir G. Kim, Matthew Fisher, Sören Pirk, Daniel Ritchie. ACM Transactions on Graphics (Proceedings of SIG-GRAPH) 2024.

Explorable Mesh Deformation Subspaces from Unstructured 3D Generative Models. Arman Maesumi, Paul Guerrero, Vladimir G. Kim, Matthew Fisher, Siddhartha Chaudhuri, Noam Aigerman, Daniel Ritchie. *SIGGRAPH Asia* 2023.

Triangle Inscribed-Triangle Picking. **Arman Maesumi**. The College Mathematics *Journal*, 50:5, 364-371, 2019.

HONORS &

NSF Graduate Research Fellowship (GRFP)

2022

MD5 Hackathon: 1st Place Entry

2017

Awarded \$15,000 grant from Department of Defense

SERVICE

Reviewing

Eurographics 2025 SIGGRAPH Asia 2024, 2025

TVCG 2024 ICCV 2023

Departmental Service

Brown Visual Computing Seminar co-organizer

2023 - Present

2024, 2025

Brown PhD Admissions

2025

NSF Research Experiences for Undergraduates Program (REU) mentor

Mentorship

Aruna Anderson Nicole Ge Krishi Saripalli Visiting Undergraduate (NSF REU) 2025 Visiting Undergraduate (NSF REU) 2025 Brown CS Undergraduate 2024

SOFTWARE

Panopti: Interactive 3D Visualization in Python

pip install panopti

https://github.com/ArmanMaesumi/panopti

TorchRBF: GPU-Accelerated Radial Basis Function Interpolator

pip install torchrbf

https://github.com/ArmanMaesumi/torchrbf

SKILLS

Programming Languages

Python, C/C++, CUDA, JavaScript, Go, Java

Tools & Technologies

PyTorch, PyTorch C++/CUDA API, NumPy, LATEX, LibIGL, Linux, Pybind11, Flask, SocketIO, React, ThreeJS

Miscellaneous

Blender, Adobe Ps/Ai/Ae, Cinema 4D, Octane Render, OpenGL, ComfyUI

PERSONAL

3D Art Portfolio

https://www.behance.net/armanmaesumi

HumanBenchmark Verbal Memory

735pts (>99.5 percentile)

Rubik's Cube Personal Record

11.25 seconds