Arman Maesumi · arman_maesumi@brown.edu · armanmaesumi.github.io

EDUCATION

Brown University Sept '21 - Present
Doctor of Philosophy, Computer Science GPA: 4.00
Advisor: Professor Daniel Ritchie

The University of Texas at Austin Aug '18 - Aug '21
Bachelor of Science, Computer Science

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 SIGGRAPH) 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 & AWARDS

NSF Graduate Research Fellowship (GRFP) **April '22**

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
Brown PhD Admissions 2025
NSF Research Experiences for Undergraduates Program (REU) mentor 2024, 2025

Mentorship
Aruna Anderson — Visiting Undergraduate (NSF REU) 2025
Nicole Ge — Visiting Undergraduate (NSF REU) 2025
Krishi Saripalli — 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