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

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 Austin — 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.

MANUSCRIPTS

Learning Transferable 3D Adversarial Cloaks for Deep Trained Detectors. **Arman Maesumi***, Mingkang Zhu*, Yi Wang, Tianlong Chen, Zhangyang Wang, Chandrajit Bajaj, 2020.

HONORS & AWARDS

NSF Graduate Research Fellowship (GRFP) April '22

University Honors, Dean's List, President's List 2020, 2018, 2017

MD5 Hackathon: 1st Place Entry 2017
Awarded $15,000 grant from Department of Defense

SKILLS

Programming Languages
Python, C/C++, Go, Java, JavaScript, TypeScript, Mathematica

Tools & Technologies
PyTorch, TensorFlow, Keras, PyTorch3D, NumPy, LaTeX, Linux

Miscellaneous
Blender, Adobe Photoshop/Illustrator, Cinema 4D, Octane Render, OpenGL, Three.js

SOFTWARE

GPU-Accelerated Radial Basis Function Interpolator
`pip install torchrbf`
https://github.com/ArmanMaesumi/torchrbf

PERSONAL

3D Art Portfolio
https://www.behance.net/armanmaesumi

HumanBenchmark Verbal Memory
735pts ($>$99.5 percentile)

Rubik's Cube Personal Record
11.25 seconds