# ARMAN MAESUMI · arman_maesumi@brown.edu · armanmaesumi.github.io

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**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

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**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.

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**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 Mod-
els**. **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.

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## HONORS & AWARDS

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

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

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## 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

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## 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

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## 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

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## PERSONAL

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

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

**Rubik's Cube Personal Record**
11.25 seconds