

Euan Hughes

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WORK EXPERIENCE

- Researcher and Engineer Intern** | *Autodesk* JAN 2026 – (Present)
- Leading production integration of 3D Gaussian Splatting for the Arnold rendering engine.
- Research Assistant** | *University of Waterloo* SEP 2024 – APR 2025
- Supervisor: [Prof. Toshiya Hachisuka](#)
- Developed novel neural-network-based spatiotemporal denoising algorithms for Monte Carlo rendering.
 - Peer-reviewed publication *to appear* at **Eurographics 2026**.
- Infantry Soldier** | *Canadian Army Primary Reserve* MAY 2019 – FEB 2023
- Developed leadership, teamwork, and discipline in a demanding military environment.

EDUCATION

- École de Technologie Supérieure** MAY 2025 – APR 2027 (Expected)
- Master of Applied Science in Computer Science**, GPA: 4.3/4.3 Montréal, QC
- Supervisors: [Prof. Adrien Gruson](#) and [Prof. Eric Paquette](#)
- Selected Coursework:
- Photorealistic Rendering Algorithms (A+)**, **Polygon Mesh Processing (A+)**
- University of Waterloo** SEP 2020 – DEC 2024
- Bachelor of Computer Science** Waterloo, ON
- Selected Coursework:
- Computer Graphics (99)**

PUBLICATIONS

- Deep Residual Combiner: A Learned Fusion of Spatial, Temporal, and Multiscale Correlated Pixel Estimates* 2026
- Eurographics 2026** (to appear)
- Weijie Zhou, **Euan Hughes**, Toshiya Hachisuka

NOTABLE PERSONAL PROJECTS

- Physically Based Offline Renderer** | *C++*
- Hobby rendering engine with extensive features, including *multiplexed Metropolis light transport*, *gradient domain bidirectional path tracing*, volume rendering, FFT bloom, an extensive material system, and more.
- 3D Gaussian Stochastic Raytracer** | *C++, Embree, GLFW*
- Real-time raytracer and diffuse pathtracer for 3D Gaussian Splat scenes. Based on the paper *Stochastic Ray Tracing of Transparent 3D Gaussians*.
- 3D Gaussian Volumetric Pathtracer** | *C++, Python, OpenVDB*
- Based on the paper *Don't Splat Your Gaussians*. Supports the conversion of OpenVDB assets into 3D Gaussians using *stochastic expectation maximization*.
- Stone Skipping Physics Simulator** | *C++, OpenGL*
- Designed and implemented a custom physics and rendering engine for the physically based simulation of stone skipping on a water surface.

TECHNICAL SKILLS

Languages: C++, C, CUDA, Python, JavaScript
Software: OpenGL/WebGL, Mitsuba, Embree, OpenVDB, PyTorch, Blender, Maya, Git

SCHOLARSHIPS AND AWARDS

(\$5,000): ÉTS Internal Scholarship	MAR 2026
1st place: ÉTS Rendering Competition	DEC 2025
(\$1,500): President's Research Award	SEP 2024
(\$3,000): President's Scholarship of Distinction	SEP 2020
2nd place: DECA Stock Market Challenge	DEC 2019
98th percentile: Canadian Open Math Contest	OCT 2019