Hridiza Roy

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EDUCATION

Rochester Institute of Technology
Bachelor of Science in Computer Science
Bachelor of Science in Applied Arts and Sciences (Self-designed major)
Concentrations:
Computer Graphics, Imaging Science
August 2021 - December 2025
GPA: 3.86 | Honors Student

SKILLS

Programming
C++, Python, USD, Hydra, MEL, Qt, PySide, GLSL, OpenGL, Vulkan, CSS, JavaScript, OpenCV

Misc
Linux/Unix, Git, Visual Studio, CMake

Film & Animation
Maya, Blender, Adobe Premiere Pro, After Effects

EXTRACURRICULARS

ASWF Summer Learning Program
- Selected as one of 20 participants from across the globe for this program
- Strengthened skills focusing on technical careers in Animation and VFX via technical coursework and mentorship from industry professionals

Re-Founder & President, RITGraph | SIGGRAPH Student Chapter
- Organize collaborative Computer Graphics projects between artists and software developers

Founder, Inter-disciplinary tech + film club
- Increased the **number of women** in technology in the school by **over 25%**
- Taught C++ and Web Development to students and managed 65+ club members

AWARDS

- ACM-W Scholarship for SIGGRAPH
- Grace Hopper Conference Scholarship
- David and Melissa Egts Scholarship | RIT
  - Awarded to 1 Undergrad Computer Science Student
- Winner, Explainer Video Contest | Adobe
- 1st Place, 33rd Annual RIT Public Speaking Contest
  - Why you should use filler words in your speeches: hridiza.com/projects/fillerWords
- Performing Arts Scholar (Dance) | RIT

RELEVANT EXPERIENCE

Graphics Software Engineer May 2024 - August 2024
Simone Center Startup Accelerator Program Rochester, NY
- Worked in a team of 3 on our startup that creates gamified custom simulation software for training for small and medium size businesses
- Conducted 50+ Customer Discovery interviews
- Developed a VR demo using **Unreal Engine** and **C++**

Software Engineer Intern May 2023 - December 2023
Ocean Optics Rochester, NY
- Increased scalability of the **Color Sensor** Software by expanding it for multiple sensors using **Python (PySide)** and **C++**
- Improved maintainability and performance of the Spirit Sampler software by redesigning and porting it from C# to **C++ (Qt)**
- Discovered and fixed a bug in FTDI's **official** library for communicating from a windows system to an embedded device via I2C using **C**

PROFESSIONAL EXPERIENCE

Physics and Math Tutor January 2023 - April 2023
RIT, Academic Success Center Rochester, NY
- Tutored students in Optics, Mechanics, Linear Algebra, Electricity, and Calculus

Communications Consultant August 2022 - April 2023
RIT, Expressive Communication Center Rochester, NY
- Helped people write technical speeches for non-technical audiences

PERSONAL PROJECTS

Demo Reel | hridiza.com/demoreel

USD Schema/Hydra imaging adapter
- Created a custom USD schema for a grass blade and a Hydra imaging adapter using C++.

C++ Raytracer from scratch
- Implemented multi-threaded Monte-carlo path tracing and Emissive Materials

Rendering Pipeline using Vulkan and C++

Maya Plugin
- Developed a displacement shader plugin for **Maya** using **C++** , **Python** , **MEL** , **CMake** , and **Visual Studio**

Pancake | Smart image presets
- Worked with 2 Motion Picture Science students to create a software using **C++** and **OpenCV** that creates 'smart presets' for images, for adapting a preset to an image's needs based on its properties like brightness and saturation instead of applying the same effects to every image

Virtual Lab
- Developed a web-app from scratch simulating a 3D classroom using **HTML, CSS, and JavaScript (No libraries)**