

MADELEINE YIP

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EDUCATION

Stanford University

Master of Science, Computer Science, Graphics / Real World Computing
Bachelor of Science, Computer Science, Graphics
Bachelor of Arts, Art Practice

Graduating in Sept 2021

Grad GPA: 3.82

Undergrad GPA: 3.83

PROFESSIONAL EXPERIENCE

Stanford University

Computer Science Course Assistant

Stanford, CA

September 2020 – Present

- > Co-taught Introduction to Computer Graphics, Interactive Computer Graphics, Computer Organization & Systems
- > Led weekly 1:1 office hours and review sessions, wrote and graded exam questions

Lucasfilm

Rendering Engineer Intern, Advanced Development Group

San Francisco, CA

June 2020 – September 2020

- > Independently designed and implemented the automation of texture baking and shader translation for the MaterialX open-source project, streamlining the content pipeline between technical artists and the final rendering platform
- > Automation functionality used on graphics projects across Lucasfilm, ILM, Adobe, Pixar and Autodesk
- > Presented texture baking project to over 140 attendees at SIGGRAPH 2020, the premier conference in computer graphics and VR/AR techniques

Rendering Engineer Intern, Advanced Development Group

June 2019 – September 2019

- > Designed initial iteration of MaterialX shader translation, enabling shader transfer between 3D graphics platforms
- > Created first iteration of texture baking with C++ to allow technical artists to save procedurally generated shaders

Stanford University

Virtual Reality Developer, Virtual Human Interaction Lab

Stanford, CA

September 2018 – June 2019

- > Developed 1000 Cut Journey VR experience 2.0 that explores racial empathy (originally at 2018 Tribeca Film Festival)
- > Scripted game functionality and events in Unreal and C#, refining avatar-world interaction and gameplay experience

Microsoft

Explore Intern (Project Management/Software Engineering)

Redmond, WA

June 2018 – August 2018

- > Redesigned user experience of Microsoft's internal website to better track worldwide transactions real-time
- > Used Javascript and HTML to visualize transactions and to monitor abnormal transaction traffic

LEADERSHIP EXPERIENCE

Stanford University Women in Computer Science

Stanford, CA

External Events Chair & Board Member

September 2017 – Present

- > Spearheaded first annual Sponsorship Dinner, a networking night attended by 100+ professionals and students
- > Proposed and conducted outreach for Spring Distinguished Speakers series (included Co-Founder of Venmo, CEO of Nuna, CEO of PlanGrid, and Director of Engineering at Airbnb) attended by 90+ students
- > Coordinated 20+ educational events with sponsors (included D.E. Shaw, Google, Andreessen Horowitz, Airbnb, Stripe)

Stanford University Clayman Institute for Gender Research

Stanford, CA

Seeds of Change Circle Leader, VMware Women's Leadership Innovation Lab

September 2017 – Present

- > Led STEM-oriented leadership workshops and facilitated discussions for girls at East Palo Alto Phoenix Academy

INDEPENDENT RESEARCH PROJECTS

Single View Object Reconstruction with Differentiable Rendering

March 2021

- > Implemented Variational Shape Learning (a convolutional architecture with skip-connections) from scratch in Pytorch

Inferring Shading Parameters from Generated Images

December 2019

- > Used deep learning (VGG-16) to reverse engineer an image generated with look development platform, MaterialX

SKILLS & INTERESTS

Skills: C++, Python, Machine Learning, Tensorflow, Pytorch, C, OpenGL, Javascript, Unreal, Cantonese, Mandarin

Interests: Distance running, women in STEM, oil painting, baking, cooking, drawing, animation