

# Xi Deng

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## Education

### Cornell University

PH.D. CANDIDATE IN COMPUTER SCIENCE

Ithaca, NY, US

June. 2019 - present

- Committee: Dr. Steve Marschner (Chair), Dr.Noah Snavely, Dr.Tomas Arias
- Minor in Physics.

### Dartmouth College

M.S. IN COMPUTER SCIENCE

Hanover, NH, US

Sept. 2016 - Mar. 2019

- Committee: Dr. Wojciech Jarosz (Chair), Dr.Peter Winkler, Prof. Lorie Loeb.
- Thesis: Photon Surfaces: Rendering Volume Robustly with Unbiased Density Estimators

### Nanjing University of Aeronautics and Astronautics

B.S. IN COMPUTER SCIENCE

Nanjing, China

Sept. 2012 - June 2016

## Honors & Awards

2024-2025	<b>NVIDIA Fellowship Finalist</b> , NVIDIA	NY, U.S.A
2022-2023	<b>Adobe Research Fellowship</b> , Adobe Research	NY, U.S.A
2019-2020	<b>Booking.com Fellowship</b> , Cornell University	NY, U.S.A
2016-2019	<b>Master Scholarship</b> , Dartmouth College	NH, U.S.A
June, 2016	<b>Merit Graduates</b> , Nanjing University of Aeronautics and Astronautics	Nanjing, China
2013-2016	<b>First-Class Merit Scholarship</b> , Nanjing University of Aeronautics and Astronautics	Nanjing, China

## Publication

### Neural Field Cache for Monte Carlo Partial Differential Equation Solver

Cornell University, NY

ZILU LI, GUANDAO YANG, XI DENG, CHRISTOPHER DE SA, BHARATH HARIHARAN, STEVE MARSCHNER

Proceedings of SIGGRAPH Aisa 2023, December 2023

### Reconstructing translucent objects using differentiable rendering

Cornell University, NY

XI DENG, FUJUN LUAN, BRUCE WALTER, KAVITA BALA, STEVE MARSCHNER

Proceedings of SIGGRAPH 2022, August 2022

### Path Graphs: iterative path space filtering

Cornell University, NY

XI DENG, MILOS HASAN, NATHAN CARR, ZEXIANG XU, STEVE MARSCHNER

ACM Transactions on Graphics (Proceedings of SIGGRAPH Asia 2021), 40(6), December 2021

### Photon surfaces for robust, unbiased volumetric density estimation.

Dartmouth College, NH

XI DENG, SHAOJIE JIAO, BENEDIKT BITTERLI, WOJCIECH JAROSZ.

ACM Transactions on Graphics (Proceedings of SIGGRAPH), 38(4), July 2019.

## Research Experience

### NVIDIA Research

Santa Clara, CA

RESEARCH INTERN

May. 2022 - Aug. 2022

### Adobe, Emerging Graphics Group

San Jose, CA

RESEARCH INTERN

May. 2020 - Aug. 2020

- Worked on "Path Graph" project under the supervision of Dr. Milos Hasan, Dr.Nathan Carr and Dr Zexiang Xu.
- Developed path graphs as a lightweight plugin for refining radiance estimates globally.

### Disney Research Lab, Zurich

Zurich, Switzerland

R&D INTERN IN RENDERING GROUP

July. 2018 - Oct. 2018

- Supervised by Dr. Jan Novak and Dr. Marios Papas. Advised by Dr. Steve Marschner, Dr. Wojciech Jarosz, and Dr. Bernd Bickel.
- Worked on fundamental improvement of an inverse renderer.

### Dartmouth Visual Computing Lab

Hanover, NH

RESEARCH ASSISTANT

June. 2017 - Mar. 2019

- Worked on "Photon Surface" project under the supervision of Dr. Wojciech Jarosz.

- Supervised by Prof. Lorie Loeb.
- Developed a VR Website which allows users to "walk" around Moosiluake lodge of Dartmouth College online.
- Built models of the house with Photoscan, refined models with Maya, Create models of missing objects in Maya.

Teaching Experience

<b>CS1110 Introduction to Computing Using Python.</b>	<i>Cornell University, U.S.A</i>
INSTRUCTOR, IN ENGLISH	<i>May. 2023 - Aug. 2023</i>
Gave 60 hours of Lectures on teaching intro-level programming using Python.	
<b>Interactive Computer Graphics.</b>	<i>Cornell University, U.S.A</i>
TEACHING ASSISTANT, IN ENGLISH	<i>Feb. 2021 - May. 2021</i>
Responsible for designing and lecturing 15-minute practice sessions, hosting office hours, grading, and answering questions online.	
<b>Introduction to Computer Graphics.</b>	<i>Cornell University, U.S.A</i>
TEACHING ASSISTANT, IN ENGLISH	<i>Sep. 2019 - Dec. 2019</i>
Responsible for designing assignments, giving feedback, hosting office hours, and answering questions online.	
<b>3D Modeling.</b>	<i>Dartmouth College, U.S.A</i>
TEACHING ASSISTANT, IN ENGLISH	<i>Mar. 2018 - June. 2018</i>
Responsible for reviewing assignments, giving feedback, hosting office hours and answering questions.	
<b>Smart-Phone Programming</b>	<i>Dartmouth College, U.S.A</i>
TEACHING ASSISTANT, IN ENGLISH	<i>Jan. 2017 - Mar. 2017</i>
Responsible for grading projects and tests, hosting lab hours and office hours, and answering questions.	
<b>Computer Animation: The State of the Art (FA17)</b>	<i>Dartmouth College, U.S.A</i>
TEACHING ASSISTANT, IN ENGLISH	<i>Sept. 2017 - Dec. 2017</i>
Responsible for hosting office hour and answering questions.	

Academic Service

2022-2024	<b>ACM SIGGRAPH</b> , Reviewer
2022-2023	<b>ACM SIGGRAPH Asia</b> , Reviewer
2022-2023	<b>ACM Transactions on Graphics(TOG)</b> , Reviewer
2022-2023	<b>Computer Graphics Forum</b> , Reviewer
2024	<b>Euro Graphics</b> , Reviewer
2023	<b>Pacific Graphics</b> , Reviewer

Skills

<b>Proficient in</b>	C/C++, GLSL, Python, CUDA, Maya
<b>Experience in</b>	Java, JavaScript, Julia, MATLAB, Mathematica, $\LaTeX$