Cindy M. Nguyen

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INTERESTS | Computational photography (depth prediction, HDR, deblurring), generative AI, computer vision

EDUCATION

PhD	Stanford University	Electrical Engineering	2019 – Expected 2024
MS	Stanford University	Electrical Engineering (GPA 3.69/4.00)	2019 - 2021
BS	Stanford University	Bioengineering (GPA 3.90/4.00)	2015 - 2019

Relevant Coursework | Geometric and Topological Data Analysis, Fourier Optics, Modern Optics, Convex Optimization, Linear Dynamical Systems, CNNs, AI/ML, Meta-Learning, Decision Making under Uncertainty, NLP

EXPERIENCE

Netflix | ML Engineering Intern
June 2023 – Sept 2023 | Los Gatos, CA
Developed pipeline for generative AI in studio production and created a generative AI-based promotional asset for a Netflix show.

Adobe Research | Research Scientist Intern
June 2022 – Dec 2022 | San Jose, CA
Hosted by Kevin Matzen, Simon Niklaus, and Oliver Wang. Developed a method for multi-layered monocular depth estimation.

RESEARCH

Stanford Computational Imaging Lab | PhD Candidate
Sept 2019 – Present | Stanford University
Advised by Prof. Gordon Wetzstein. Building deep learning-based methods for computational imaging and photography.

Brian Feldman Lab | Research Assistant
Sep 2017 – Mar 2019 | Stanford University
Performed RNA-Seq analysis in mature adipocytes to identify metabolic systemic cues for diabetes.

Markus Schwaninger Lab | Research Assistant
July 2018 – Sept 2018 | Universität zu Lübeck, Lübeck, Germany
Investigated leptin transport across the blood-brain barrier in porcine cortical endothelial in vitro models.

Stanley Qi Lab | Research Assistant
Mar 2016 – Feb 2018 | Stanford University
Developed chemically-inducible CRISPR/dCas9-based dimerization systems for human chromatin 3D organization and spatiotemporal gene dynamics tracking through live cell imaging.

PUBLICATIONS

Diffusion in the Dark: A Diffusion Model for Low-Light Text Recognition.
Nguyen, C.M., Chan, E.R., Bergman, A.W., Wetzstein, G. *arXiv*, 2023.

Learning Spatially Varying Pixel Exposures for Motion Deblurring.
Nguyen, C.M., Martel, J.N.P., Wetzstein, G. *ICCP*, 2022.

Depth from Defocus with Learned Optics for Imaging and Occlusion-Aware Depth Estimation.
Ikoma, H., Nguyen, C.M., Metzler, C.A., Peng, Y., Wetzstein, G. *ICCP*, 2021.

CRISPR-Mediated Live Imaging of Genome Editing and Transcription.
Wang, H., Nakamura, M., Abbott, T.R., Zhao, D., Luo, K., Yu, C., Nguyen, C.M., …, Qi, L.S. *Science*, 2019.

CRISPR-Mediated Programmable 3D Genome Positioning and Nuclear Organization.
Wang, H., Xu, X., Nguyen, C.M., Liu, Y., Gao, Y., Lin, X., Daley, T., Kipniss. N.H., La Russa, M., Qi, L.S. *Cell*, 2018.
Press: Stanford Medicine, Stanford Daily, Quanta, Science

HONORS

NSF GRFP, Generation Google Scholarship, German Academic Exchange Service Scholarship, Stanford JEDI Service Graduation Award, Stanford Bio-X Undergrad Research Fellowship, NSF Undergrad Research Fellowship, Google igniteCS Grant

TECHNICAL SKILLS

Experienced | PyTorch, Python, MATLAB
Familiar | Onshape, Blender, Zemax, InkScape, ImageJ