

SUNIL KUMAR

Computer Vision Researcher

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EDUCATION

Master of Science <i>Computer Science Specialising in Computational Perception</i> Georgia Institute of Technology	Aug. 2023 – Aug 2024 Atlanta, Georgia
Bachelor of Technology <i>Software Engineering</i> SRM Institute of Science and Technology	Aug. 2017 – May 2021 Chennai, India

WORK EXPERIENCE

Research Intern AI Shein	June 2024 – Present Palo Alto, California
<ul style="list-style-type: none">• Currently Working on 3D Virtual Try-on for the Shein Studio platform	
Graduate Student Researcher Georgia Institute of Technology	August 2023 – Present Atlanta, Georgia
<ul style="list-style-type: none">• Proposed a novel Hyper-spectral 3d reconstruction method using Neural Radiance Fields (NeRFs), which we extended to be able to render novel views for any wavelength (not just RGB). This enables all new use cases in biology and recycling, where different plants or materials exhibit different properties depending on the wavelength they are viewed from.• Working on Gaussian Splatting based methods to render robust novel views for noisy images of 3d scenes• Working on Diffusion based methods using trajectory based priors to render brushstrokes given Trajectory information from a FRANKA PANDA robot setup.	
Senior Research Scientist Fastcode AI	August 2022 – February 2023 Bengaluru, India
<ul style="list-style-type: none">• Worked on Computer vision problems pertaining to autonomous drones• Developed and deployed high accuracy and low latency models for inventory mapping using live UAV feeds.	
Computer Vision Engineer VisionBox.ai	September 2021 – August 2022 Remote
<ul style="list-style-type: none">• Worked on Disease detection in Crop images and improving Bug Detection in Drone Field images• Worked on Sports Analytics using game footage to identify various game related characteristics.• Worked on a variety of Sub-tasks like Image Stitching, Image Matching for retrieving important agriculture based insights.	
Computer Vision Intern Sony Research India	July 2021 – December 2021 Bengaluru, India
<ul style="list-style-type: none">• Worked on improving representation of video and audio based modalities.• Conducted research and discovered new methods that improved on the SOTA emotion recognition benchmarks based on Multimodal fusion.	

COMPETITIONS

SIIC Melanoma Detection Bronze Medal	2020 Kaggle
<ul style="list-style-type: none">• Participated in the Kaggle Competition hosted by SIIC to detect the presence of Melanoma, a common type of Skin Cancer.• Achieved an F1 score of 0.938, winning a bronze medal for performance.	

SKILLS

Languages: English (Full Professional fluency), Tamil (Native), Hindi (Native), Telugu (Full Professional fluency)
Programming: Python (NumPy, SciPy, Matplotlib, Pandas, Tensorflow, Scikit Learn), Scilab, C/C++, Java