

EDUCATION	University Of Massachusetts, Amherst , (Ph.D. - CS) <i>Jan 2018 - Dec 2024</i> Columbia University, NewYork , (M.S. , CS) <i>Sep 2011 - Dec 2012</i>
PUBLICATIONS	Conference <ul style="list-style-type: none"> • BuildingNet: Learning to Label 3D Buildings: Pratheba Selvaraju, Mohamed Nabail, Evangelos Kalogerakis, Siddhartha Chaudhuri. (ICCV Oral -2021) • Developable Approximation of Neural Implicits via Rank Minimization: Pratheba Selvaraju. (International conference on 3D Vision (3DV-2024)) . • OFER: Occluded Face Expression Reconstruction: Pratheba Selvaraju, Victoria Fernandez Abrevaya, Timo Bolkart, Rick Akkerman, Tianyu Ding, Faezeh Amzadi, Ilya Zharkov. (CVPR - 2025) • FORA: Fast-Forward Caching in Diffusion Transformer Acceleration: Pratheba Selvaraju, Tianyu Ding, Tianyi Chen, Ilya Zharkov, Luming Liang. (arXiv, Towards conference submission) Journal <ul style="list-style-type: none"> • A 3D digitisation workflow for architecture-specific annotation of built heritage: Marisia Deligiorgi, Maria I Maslioukova, Melinos Averkiou, Andreas C Andreou, Pratheba Selvaraju, Evangelos Kalogerakis, Gustavo Patow, Yiorgos Chrysanthou, George Artopoulos .(JASREC -2021)
RESEARCH EXPERIENCE	MPI - Perceived Systems , Tübingen, Germany (Research Assistant) <i>Feb 2025 – current</i> <ul style="list-style-type: none"> • Mesh garment stylization. Deforming and adapting a garment from a human to non-humanoid characters matching the style of the garment, part of the AccessoryAdaptation project • Virtual try-on accessorization Realistic human face reconstruction with added accessories using 3D Gaussian Splatting (3DGS) Roblox Corporation , San Mateo, CA (Research Intern) <i>June 2024 – Dec 2024</i> <ul style="list-style-type: none"> • AccessoryAdapation for morphologically different avatars: Deforming and adapting a garment from a human to non-humanoid characters with no specified correspondence mapping. (Towards conference submission) Microsoft - Applied Science Group , Redmond, WA (Research Intern) <i>Sep 2022 – Dec 2022</i> <ul style="list-style-type: none"> • OFER: Occluded Face Expression Reconstruction, a diffusion based generative model incorporating ranking mechanism to select optimal samples • FORA: Fast-Forward caching in Diffusion Transformer Acceleration, a faster sampling mechanism for diffusion based transformer network Google , Redmond, WA (Applied research Intern) <i>Jun 2022 - Aug 2022</i> <ul style="list-style-type: none"> • Worked on LiDAR building semantic labelling of parts and reconstruction • Conducted experiments on real google street view lidar data to extract window positions to be used for training for part label segmentation • Experiments to reconstruct the open surfaces (buildings) Facebook Reality Labs , Redmond, WA (Research Intern) <i>May 2020 - Sep 2020</i> <ul style="list-style-type: none"> • Worked on virtual panel placement in synthetic room view in augmented reality setup • Conducted experiments for better placement of the panel with respect to head positions dealing with occlusions and scale of the panel
ENGINEERING EXPERIENCE	IMO, USA (Software Engineer) <i>Mar 2017 – Dec 2017</i> Audio quality improvement of the IMO application by suppression of voice interruption and echo. Machine Zone, USA (Software Engineer) <i>Sep 2016 – Jan 2017</i> Art tool development for production of game assets using shader programming and 3D graphics Microsoft, USA (Software Engineer) <i>Apr 2013 – Aug 2016</i> Full stack developer in Skype for business

TECHNICAL SKILLS	<p>Python, C++, Pytorch, OpenGL, node4j, Blender</p> <p>3D Computer Vision, 3D Computer Graphics, 3D reconstruction, Dataset Generation, Diffusion Generative modeling, Implicit reconstruction, Fast transformer, Geometry Processing, Knowledge Graph, Dataset creation</p>
COURSES	<p>Coursera</p> <ul style="list-style-type: none"> • Generative AI with Large Language Models (LLMs). <p>Udemy</p> <ul style="list-style-type: none"> • NeRF
PORTFOLIO	<p>CV-Personal Webpage(pratheba.github.io)</p> <p>LinkedIn(prathebaselvaraju)</p>
REFEREES	<p>Erik Learned-Miller, (University of Massachusetts, Amherst) Email: elm@cs.umass.edu</p> <p>Victoria Fernandez Abrevaya, (Max Planck Institute for Intelligent Systems: Perceived Systems) Email: victoria.abrevaya@tuebingen.mpg.de</p> <p>Luming Liang, (Microsoft Research) Email: llmpass@gmail.com</p> <p>Tianyu Ding, (Microsoft Research) Email: tianyuding@microsoft.com</p>