

EDUCATION	<p><b>University Of Massachusetts, Amherst</b>, (Ph.D. - CS) <i>Jan 2018 - Dec 2024</i></p> <p><b>Columbia University, NewYork</b>, (M.S. , CS ) <i>Sep 2011 - Dec 2012</i></p>
PUBLICATIONS	<p><b>Conference</b></p> <ul style="list-style-type: none"> <li>• <a href="#">BuildingNet: Learning to Label 3D Buildings</a>: <b>Pratheba Selvaraju</b>, Mohamed Nabail, Evangelos Kalogerakis, Siddhartha Chaudhuri. (ICCV Oral -2021 )</li> <li>• <a href="#">Developable Approximation of Neural Implicits via Rank Minimization</a>: <b>Pratheba Selvaraju</b>. (Accepted - International conference on 3D Vision (3DV-2024)) .</li> <li>• <a href="#">OFER: Occluded Face Expression Reconstruction</a>: <b>Pratheba Selvaraju</b>, Victoria Fernandez Abrevaya, Timo Bolkart, Rick Akkerman, Tianyu Ding, Faezeh Amzadi, Ilya Zharkov. (Under submission - Conference)</li> <li>• <a href="#">FORA: Fast-Forward Caching in Diffusion Transformer Acceleration</a>: <b>Pratheba Selvaraju</b>, Tianyu Ding, Tianyi Chen, Ilya Zharkov, Luming Liang. (arXiv, Towards conference submission)</li> </ul> <p><b>Journal</b></p> <ul style="list-style-type: none"> <li>• <a href="#">A 3D digitisation workflow for architecture-specific annotation of built heritage</a>: Marisia Deligiorgi, Maria I Maslioukova, Melinos Averkiou, Andreas C Andreou, <b>Pratheba Selvaraju</b>, Evangelos Kalogerakis, Gustavo Patow, Yiorgos Chrysanthou, George Artopoulos .(JASREC -2021 )</li> </ul>
RESEARCH INTERNSHIP	<p><b>Roblox Corporation</b>, San Mateo, CA <i>June 2024 – Dec 2024</i></p> <ul style="list-style-type: none"> <li>• <a href="#">AccessoryAdapation for morphologically different avatars</a>: Deforming and adapting a garment from a human to non-humanoid characters with no specified correspondence mapping. (Towards conference submission)</li> </ul> <p><b>Microsoft - Applied Science Group</b>, Redmond, WA <i>Sep 2022 – Dec 2022</i></p> <ul style="list-style-type: none"> <li>• OFER: Occluded Face Expression Reconstruction, a diffusion based generative model incorporating ranking mechanism to select optimal samples</li> <li>• FORA: Fast-Forward caching in Diffusion Transformer Acceleration, a faster sampling mechanism for diffusion based transformer network</li> </ul> <p><b>Google</b>, Redmond, WA <i>Jun 2022 - Aug 2022</i></p> <ul style="list-style-type: none"> <li>• Worked on LiDAR building semantic labelling of parts and reconstruction</li> <li>• Conducted experiments on real google street view lidar data to extract window positions to be used for training for part label segmentation</li> <li>• Experiments to reconstruct the open surfaces (buildings)</li> </ul> <p><b>Facebook Reality Labs</b>, Redmond, WA <i>May 2020 - Sep 2020</i></p> <ul style="list-style-type: none"> <li>• Worked on virtual panel placement in synthetic room view in augmented reality setup</li> <li>• Conducted experiments for better placement of the panel with respect to head positions dealing with occlusions and scale of the panel</li> </ul>
PROFESSIONAL EXPERIENCE	<p><b>Max Planck Institute</b>, USA (<b>Research Assistant</b>) <i>Feb 2025 – current</i></p> <p>AccessoryAdapation from human to animals.</p> <p><b>IMO</b>, USA (<b>Software Engineer</b>) <i>Mar 2017 – Dec 2017</i></p> <p>Audio quality improvement of the IMO application by suppression of voice interruption and echo.</p> <p><b>Machine Zone</b>, USA (<b>Software Engineer</b>) <i>Sep 2016 – Jan 2017</i></p> <p>Art tool development for production of game assets using shader programming and 3D graphics</p> <p><b>Microsoft</b>, USA (<b>Software Engineer</b>) <i>Apr 2013 – Aug 2016</i></p> <p>Full stack developer in Skype for business</p>
TECHNICAL SKILLS	<p>Python, C++, Pytorch, OpenGL, node4j</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

### Coursera

- Generative AI with Large Language Models (LLMs).

## PORTFOLIO

**CV-Personal Webpage**([pratheba.github.io](https://pratheba.github.io))

**LinkedIn**([prathebaselvaraju](#))

## REFEREES

**Erik Learned-Miller**, (University of Massachusetts, Amherst)

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