Pratheba Selvaraju — pselvaraju@umass.edu — +1 646 725 1109

EDUCATION

University Of Massachusetts, Amherst, (Ph.D. - CS) Columbia University, NewYork, (M.S., CS) Jan 2018 - Dec 2024 Sep 2011 - Dec 2012

Publications

Conference

- 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. (Accepted International conference on 3D Vision (3DV-2024)) .
- OFER: Occluded Face Expression Reconstruction and Ranking: Pratheba Selvaraju, Victoria Abrevaya, Timo Bolkart, Faezeh Amzadi, Ilya Zharkov.

 (Under submission Conference)
- FORA: Fast-Forward Caching in Diffusion Transformer Acceleration: Pratheba Selvaraju, Tianyu Ding, Tianyi Chen, Ilya Zharkov, Luming Liang.

 arXiv submission

Journal

• A 3D digitisation workflow for architecture-specific annotation of built heritage: Marissia Deligiorgi, Maria I Maslioukova, Melinos Averkiou, Andreas C Andreou, **Pratheba Selvaraju**, Evangelos Kalogerakis, Gustavo Patow, Yiorgos Chrysanthou, George Artopoulos .(JASREC -2021)

RESEARCH Internship

Roblox Corporation, San Mateo, CA

June 2024 – current

• AccessoryAdapation for avatars

Microsoft - Applied Science Group, Redmond, WA

Sep 2022 – Dec 2022

• OFER: Occluded Face Expression Reconstruction and Ranking

Google, Redmond, WA

Jun 2022 - Aug 2022

- 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

May 2020 - Sep 2020

- 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

Professional Experience

IMO, USA (Software Engineer)

Mar 2017 – Dec 2017

Audio quality improvement of the IMO application by suppression of voice interruption and echo.

Machine Zone, USA (Software Engineer)

Sep 2016 – Jan 2017

Art tool development for production of game assets using shader programming and 3D graphics

Microsoft, USA (Software Engineer)

Apr 2013 - Aug 2016

Full stack developer in Skype for business

Amazon, USA (Software Development Intern)

 $May\ 2012 - Aug\ 2012$

EMC Corporation(RSA), India (Software Engineer)

Aug 2009 - July 2011

TECHNICAL SKILLS Python, C++, Pytorch, OpenGL

3D Computer Vision, 3D Computer Graphics

 ${\bf PORTFOLIO} \qquad \qquad {\bf CV-Personal\ Webpage(pratheba.github.io)}$

LinkedIn(prathebaselvaraju)

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

Email: elm@cs.umass.edu

Timo Bolkart, (Google Research)
Email: timo.bolkart@tuebingen.mpg.de

Victoria Fernandez Abrevaya Bolkart, (Max Planck Institute for Intellident Systems)

Email: victoria.abrevaya@tuebingen.mpg.de

Luming Liang, (Microsoft Research)

Email: llmpass@gmail.com