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

Education

University Of Massachusetts, Amherst,(Ph.D. - CS) *Jan 2018 - current*
Columbia University, NewYork, (M.S., CS) *Sep 2011 - Dec 2012*
PSG College of Technology, India, (B.E., IT) *Aug 2005 - Jun 2009*

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)

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)**

Current Projects

- Supervised Face Ranking for Parametric Conditional Generative Models: **Pratheba Selvaraju**, **Victoria Abrevaya**, **Timo Bolkart**
- High detailed 3D animatable face generation from single view images: **Pratheba Selvaraju**, **Timo Bolkart**, **Victoria Abrevaya**
- Vectordiffusion of Neural Implicits for Layout Design: **Pratheba Selvaraju**, **Tianyu Ding**

Research Internship

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

PORTFOLIO

CV-Personal Webpage(pratheba.github.io)
LinkedIn(prathebaselvaraju)
Github
univGithub (prathebaselva)

REFEREES

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

Ilya Zharkov, (Microsoft Research)
Email: zharkov@microsoft.com

Evangelos Kalogerakis,(University of Massachusetts, Amherst)
Email: kalo@cs.umass.edu