Pratheba Selvaraju — pselvaraju@cs.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: **Selvaraju Pratheba**, Nabail Mohamed, Kalogerakis Evangelos, Chaudhuri Siddhartha.**(ICCV Oral -2021)**
- Developable Surface using 3D Implicit functions: **Selvaraju Pratheba**, Kalogerakis Evangelos. **(Under review - EG-23)**
  Implicit surface reconstruction of developable surface reconstruction from noisy input point cloud regularized by developability prior

Working Paper

- 3D Generative Modelling from single view image "in the wild": **Selvaraju Pratheba**, Faezeh Amjadi, Ilya Zharkov

Research Internship

Microsoft - Applied Science Group, Redmond, WA *Sep 2022 – current*

- Working on 3D face reconstruction from single view image
- Conducting experiments on microsoft data focusing on temporal stability, better reconstruction and frame to frame consistency

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*

Academic Projects

University Of Washington, Seattle, Washington, USA *Jan 2014 – Mar 2014*

- RealTime fingertip tracking and virtual painting

Columbia University, New York, New York, USA. *Sep 2011 – Dec 2012*

- XNA Shader Programming :
- Augmented Reality Mobile game application

Technical Skills

Python, C++, Pytorch, OpenGL
3D Computer Vision, Machine Learning, 3D Computer Graphics

Portfolio

LinkedIn
Github
univGithub