

|                         |  |                                       |
|-------------------------|--|---------------------------------------|
| RESEARCH INTEREST       | My research interest are in the fields of 3D computer vision, graphics and Augmented Reality.  |                                       |
| EDUCATION               | <b>University Of Massachusetts, Amherst</b> , Amherst, MA, USA.  |                                       |
|                         | <i>Ph.D candidate ( Computer Science )</i>   | <i>January 2018 – current</i>         |
|                         | <b>Columbia University</b> , New York, New York, USA.  |                                       |
|                         | <i>Masters of Science ( Computer Science )</i>   | <i>September 2011 – December 2012</i> |
|                         | <b>PSG College of Technology</b> , Coimbatore, Tamil Nadu, India.  |                                       |
|                         | <i>Bachelor of Technology ( Information Technology )</i>   | <i>August 2005 – June 2009</i>        |
| RESEARCH EXPERIENCE     | <b>University Of Massachusetts, Amherst</b> , Amherst, Massachusetts, USA  |                                       |
|                         | <i>Graduate Research Assistant, advised by Prof.Evangelis Kalogerokis</i>  |                                       |
|                         | <ul style="list-style-type: none"> <li>• <i>3D building segmentation and labelling (Ongoing)</i> : Buildings have different architectural styles but there is an underlying structural similarity. This research is to analyze and understand it by modelling a neural network which would capture the relationship between components of a building and automatically identify its category This can be used in real world for augmenting information about building, drone visuals, also help 3D artists ease the process of content creation. With no standard benchmark dataset available 3D buildings, a new benchmark dataset is being created for academic and research purpose.</li> </ul>           |                                       |
|                         | <b>University Of Washington</b> , Seattle, Washington, USA   |                                       |
|                         | <i>Volunteering for Research Experience, advised by Prof.Brian Curless</i>   |                                       |
|                         | <ul style="list-style-type: none"> <li>• <i>3D indoor scene segmentation</i>:An application oriented research targeted at manufactures and retailers for modeling indoor spaces by replacing non-structural objects with user specified ones .</li> </ul>  |                                       |
| ACADEMIC PROJECTS       | <b>University Of Washington</b> , Seattle, Washington, USA   |                                       |
|                         | <i>Projects</i>  | <i>January 2014 – March 2014</i>      |
|                         | <ul style="list-style-type: none"> <li>• <i>RealTime drawing of 3D object on screen</i> : Developed a prototype to paint the surface of a live video by augmetation using motion tracking of finger tips. The rough surface painted is then used to augment with a 3D model corresponding to the shape of the drawing in primitive geometry space</li> </ul>   |                                       |
|                         | <b>Columbia University</b> , New York, New York, USA   |                                       |
|                         | <i>Projects</i>  | <i>September 2011 – December 2012</i> |
|                         | <ul style="list-style-type: none"> <li>• <i>XNA Shader Programming</i> : Developed modeling and rendering concepts of 3D computer graphics in GoblinXNA platform. It incorporated various shader programming techniques such as texturing, toon shading, lighting and material shading. .</li> <li>• <i>Augmented Reality Mobile game application</i> : Project aimed to demonstrate the features and functionality of Augmented Reality. The mobile application enables users to select colors from real world and apply it to the virtual mobile screen and onto the virtual objects. Object selection and manipulation, travel and wayfinding, were the principal features of the application.</li> </ul> |                                       |
| PROFESSIONAL EXPERIENCE | <b>IMO</b> , Palo Alto, California, USA  |                                       |
|                         | <i>Software Development Engineer</i>   | <i>March 2017 – Dec 2017</i>          |
|                         | <ul style="list-style-type: none"> <li>• <i>Echo Cancellation in Audio</i>: Worked in Audio quality improvement of the IMO application.</li> </ul>   |                                       |

- Took ownership of Echo cancellation project to cancel or suppress the voice interruption scenarios that appear in a peer to peer conversation.

**MZ (Machine Zone) Inc**, Palo Alto, California, USA

*Software Development Engineer*

*September 2016 – January 2017*

- *Game Engineering*: Worked in core game engine team.
- Took ownership on re-writing an internal art tool used by artist to produce game assets
- Involved in refactoring and improving the performance of the existing- above mentioned - art tool by adding new features, enhancements and bug fixes for the artist to continue their work until arrival of new tool. This work majorly involved 2D and 3D graphics and shader programming.

**Microsoft Corporation**, Seattle, Washington, USA

*Software Development Engineer - Skype for business*

*April 2013 – August 2016*

- Primarily involved in integrating and rebranding Lync to have equivalent user experience to that of Skype for Consumer.
- Developed new copy feature for chat window that had critical and major business impact for one of our major clients - Morgan Stanley. It directly impacted the teams revenue.
- Widely recognized in the team for the work done on refactoring the improved the developer experience and productivity.
- Worked on customer escalation issues and quality assurance.

**Amazon Corporate LLC**, Seattle, Washington, USA

*Software Development Engineering Intern*

*May 2012 – August 2012*

- *Product Routing Classifier* : This is a prototype developed to channel the customer returned product to an appropriate endpoint in Amazon recycling chain. It was built on regression classifier which improved the accuracy of existing rule based system from 60 to 80 percent.

**EMC Corporation(RSA Security India Pvt Ltd)**, Bangalore, Karnataka, India

*Associate Software Engineer*

*August 2009 – July 2011*

|                  |  |
|------------------|--|
| COURSEWORKS      | Convolutional Neural Network, Computer Vision, Augmented Reality, Computer Graphics, Machine Learning, Algorithms<br><i>Teaching Assistant</i> : Algorithms for DataScience, Computer Graphics, Data Structures, Computational Linear Algebra. |
| TECHNICAL SKILLS | C++, Python, PHP<br>PyTorch, OpenGL  |
| PORTFOLIO        | <a href="http://www.linkedin.com/in/prathebaselvaraju/">http://www.linkedin.com/in/prathebaselvaraju/</a><br><a href="https://github.com/pratheba">https://github.com/pratheba</a>   |