Saurabh Pankaj Mistry

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Education:

University of Southern California, Los Angeles, California **May 2015**

➔ MS Electrical Engineering – Multimedia and Creative Technology

Skills:

Programming Languages: C, C++, MatLab **Libraries:** OpenCV, AngularJS **RDMBS Package:** MySQL

Web Development: Javascript, HTML/HTML-5, CSS, PHP, AJAX **Scripting:** Python, bash

Tools: XCode, Microsoft Visual Studio, Eclipse, Code Composer Studio, Auto-CAD, MS Office, QT Creator

Work Experience:

Infostretch Corporation, Santa Clara, California **Software Engineer** **Aug 2015 – till date**

- Working on a client project to build a cross platform desktop UI for in-vehicle GPS Navigation systems using Nokia's QT Creator.
- Worked on a dynamic website template builder in order to facilitate quick template selection and website development for a bare bone web flow using AngularJS, UI-Router, HTML, CSS and Bootstrap.

Aemass Inc. , San Francisco, California **Software Engineer** **Jun 2015 – Aug 2015**

- FFMPEG based video compression and and audio integration for web based Virtual Reality module.
- Camera calibration for a 3/4 kinect camera rig for 3-D reconstruction and display using PCD libraries.
- Socket programming for transmission of user commands from client to server and compressed video bits from server to client for real time interactions for virtual reality application with minimal latency.

Indus Valley Partners India Pvt. Ltd. ,Mumbai, India **Software Developer** **Jun 2013 – Nov 2013**

- Web application to manage production, consumption and utility for a Geosteel LLC. using AngularJS, HTML, CSS, and MySQL.
- Implemented finance concepts on a short project for Providence, a Hedge-Fund company to manage their investments and portfolio. Also developed a report viewer based on SQL Server Reporting Services.

Publications:

Santosh Chapaneri, Saurabh Mistry & Sannidhi Dixit (2012). Performance Evaluation of Edge-based Video Error Concealment using H.264 Flexible Macroblock Ordering. International Journal of Computer Science and Engineering Technology, 3 (12), p 605-615, ISSN: 2229-3345

Projects:

Directed Research (Computer Vision) **Jan 2015 – May 2015**

- Automated skill level estimation for doctors performing Capsulorhexis - A portion of cataract surgery, based on video capture.

Air Draw **Jan 2015 – May 2015**

- Hand gesture and tracking based module to draw, scale, rotate and translate and color basic shapes like in MS Paint app.

Multimedia Projects: **Jan 2014 – Dec 2014**

- Image enhancements and alterations, advanced filtering techniques like Bilateral Filtering and Non Local Means Filtering, Edge detection, Morphological processing for finger print recognition using Minutiae extraction, Optical Character Recognition (OCR), Texture classification and segmentation
- Video Compression: Enhanced Fast inter and intra mode decision for motion estimation in H.264/AVC, Custom GOP designing in H.265/HEVC and HEVC performance analysis.
- Graphics library for rendering models on to the computer screen with optimum lighting, shading and 3-D effects with ability for translation, rotation, scaling, and texture mapping. Implemented ray tracing and volumetric shadowing.

Computer Networking **Jan 2014 – May 2014**

- Socket Programming: Simulation of an Automated Auction System with 2 bidders and sellers and an auction server to facilitate co- ordination between the sellers and bidders and make a decision using TCP and UDP sockets over IP

H.264 Video Error Concealment **Aug 2012 – May 2013**

- Facilitate hiding the errors that distort the video signal during transmission over digital links in such a way that the end user has a smooth viewing experience with extremely minimal distortion or error.