Manasi Muglikar – Résumé

Address	M-152 BITS Pilani Hyderabad Campus, India, 500078	**Mobile Phone** **Email** **Blog**	+91 81850 16462 manasimuglikar@gmail.com https://manasimuglikar.wordpress.com/
Date of Birth	24^{th} November 1994	**GitHub**	https://github.com/Manasi94
Nationality	Indian		

Education

2012-Present B.E(Hons.) Electrical and Electronics - Birla Institue of Technology and Science, Pilani

CGPA - 8.03/10

2012 Class XII CBSE – AISSCE -Vikhe Patil Memorial School, Pune

Percentage - 93.2%

2010 Class X SSC- St. Anne's High School, Pune

Percentage - 90.55%

Research Interests

I am passionate about Computer Vision, Artificial Intelligence, Signal Processing Machine Learning
I enjoy learning and experimenting with Computer Graphics, Embedded Systems,Pervasive Computing

Work Experience

Jan 2016-Present Nexustec
Intern

Development of Camera and Hardware system for Embedded Machine Vision Application.

August 2015-Dec 2015 BITS Pilani, Hyderabad Campus, India
Research Teaching Assistant

Teaching assistant for the course Digital Design under Prof. BVVSN Prabhakar Rao.

May 2015 - August 2015 Pupil Labs, Berlin, Germany
Research Intern

Contributed to open source eye tracking platform by speeding up the algorithm by implementing Cython language.

Dec 2014 - March 2015 Srujana Innovation Center, Hyderabad, India
Research Intern

Designed prototypes for diagnosis of medical conditions in collaboration with pediatricians from LV Prasad Eye Institute.

May 2014 - July 2014 Renu Electronics, India
Intern

Study of processing and manufacturing of PLC 'FL005 Flexi logic'.

Skills

Programming Languages: Assembly language(x86),C, C++, HTML, Python, Java, R, MATLAB, Octave
Operating Systems: Linux/Unix system, Windows
Software: OpenCV, OpenGL, LabView, Verilog.
Design Tools: LTSpice, Hspice, OrCAD, AutoCAD, Solidworks, LaTeX

Projects

Embedded Machine Vision
- *Mr. Sourabh Bodas, Research Scientist and Software Engineer Nexustec GmbH, Munich, Germany*

- The project focuses on the development of the embedded stereo camera system for the machine vision application for the automation of the industrial manufacturing processes. The project involve extensive knowledge of Computer / Machine Vision and Software Development in C/C++.

Pupil
- *Mr. Moritz Kassner, CEO Pupil Labs, Berlin, Germany*

- Contributed to open source eye tracking platform in collaboration with Pupil Labs in Berlin.Work involved speeding up the algorithm using Cython language.

- Wrote a new driver for UVC cameras and mapped the controls using a structure in Python.The controls are defined in the UVC standard.

Attention detection
- *Mr.KCS Murthy, Visiting Faculty, BITS Pilani*

- Designed a prototype to detect the gaze of an individual.It has applications in driver safety and advertising industry.

Anterior Segment Imaging
- *Mr.Shantanu Sinha, MIT Media Labs*

- Implemented a low-cost, wearable solid-state device with no moving optical parts, used to create a full 3D reconstruction of the anterior segment of the eye

Understanding Brain Connectivity using HARDI Diffusion Imaging in Amyotrophic Lateral Sclerosis(ALS)
- *Dr. Venkateswaran Rajagopalan, Assistant professor, BITS Pilani*

- This study uses Higher Angular Resolution Diffusion Imaging (HARDI) to identify the accuracy of fiber tracts that can be reconstructed while adopting the clinical Diffusion Imaging.

Star Wars Chessboard
- *Dr. Tathagata Ray, Assistant Professor, BITS Pilani*

- Computer Graphics project to construct a chessboard with the chess pieces made of Star Wars 7 character BB-8 Unit using OpenGL in C++.

Modeling digital circuits using CNTFET
- *Dr.S .K Sahoo, Assistant professor, BITS Pilani*

- Carbon Nanotube Field Effect Transistors(CNTFET) based multi valued logic half adder circuit design and simulation using HSPICE.

Design of Protection Relay system
- *Dr.Alivelu Manga Parimi, Assistant professor, BITS Pilani*

- Designed a system that monitored the circuit, detected a problem, during its initial stage, and significantly reduced damage to personnel and equipment using a microcontroller and a relay system

Implementation of MIPS architecture
- *Mr. Chetan Kumar, Lecturer, BITS Pilani*

- Implemented the MIPS Architecture in a single cycle and multicycle implementation using the XIlinx ISE design tools and Verilog

Mapping using images captured by Tailless Fixed Wing Aircraft (Flying Wing)

- An autonomous Unmanned Aerial Vehicle is built with thermographic cameras to detect humans during natural and man-made disasters.

Gesture controlled musical jam

- Based on the gesture recognition from accelerometer sensors,generated chords of a musical instrument. Later used networking to connect such gestures and create a musical jam.

Voice Command Recognition

- Interpretation of voice commands and responding accordingly using python speech recognition module.

Awards and Achievements

- LVP-MITRA fellowship awarded by MIT Media Labs and LV Prasad Eye Institute
- Qualified for Intel India embedded challenge 2014
- Editorial Board member of PHoEnix, a technical association of students of Electrical Engineering,
- Editor for Valonia in 2013
- Conducted workshop on 'Basic Image Processing' through Automation and Robotics Club(ARC) BITS Pilani Hyderabad Campus
- MIT Media Labs Design Innovation and ReDx workshop participant.
- Awarded a merit scholarship. This scholarship is given to top 1% of the best academic performers in state region
- Won the Times NIE Quiz in 2009. Member of Quiz club and Drama Club.