PROFESSIONAL EXPERIENCE

Sony Corporation, Tokyo | Software Engineering Intern *May 2015 - Jul 2015*

- Designed new **cloud based testing environment** for Android devices and upgraded the existing framework's APIs
- Analyzed and evaluated the performance of **Android virtualization frameworks**
- Developed stubs in Android's source code to workaround the restrictions of native emulator

FOSSEE | Developer, Scilab Signal Processing Toolbox *Dec 2015 - Present*

The team develops and promotes free and open-source software in education as part of an initiative by the Govt. of India

- Coded functions in Scilab to emulate their MATLAB counterparts as a part of 5-member team
- Studied and implemented algorithms from areas including pseudospectrum evaluation, filter coefficient estimation

KEY PROJECTS

Laparoscopy Image Enhancement | Graduate Dissertation *Jan 2016 - Exp. Jun 2017*

Alleviating smoke, noise, and speckles observed in laparoscopy images Prof. S. Awate, Prof. S. Merchant

- Modeled a **novel** joint optimization framework using **Markov Random Fields** to impose priors on the variables
- Studied and implemented priors using non-negative sparse coding and kernel density estimation
- Exploring various optimization strategies including **Expectation-Maximization (EM)** and **Variational Bayes**

Point Set Registration | Course Project *Mar 2016 - Apr 2016*

Using point set registration techniques to classify dorsal images of fish Prof. A. Rajwade

- Designed an algorithm to smoothen the boundary and autonomously place points to efficiently capture curvature
- Evaluated the performance of **Iterative Closest Point** and **Robust Point Matching** algorithms

Temporal Super-Resolution in Videos | Research Project *Feb 2015 - Apr 2015*

Increasing frame rate of videos using spatio-temporal correlation Prof. A. Kumar, Prof. S. Chaudhuri

- Implemented the **Papoulis-Gerchberg** method for pixel-wise interpolation across the temporal domain
- Investigated the super-resolution of motion vectors considering it as an estimate of physical motion of objects

IIT Bombay Racing | Junior Design Engineer, Battery Division *Jul 2013 - Jun 2014*

The 70+ member team represents IITB at **Formula Student UK**, an electric racing vehicle competition

- Achieved a **35% reduction** in weight by analyzing the performance of last year's car
- Implemented **temperature monitoring system** for the battery pack ensuring compliance with standards

SCHOLASTIC ACHIEVEMENTS

- Completed a **minor degree** in **Computer Science and Engineering** with a CPGA of 8.4 *2016*
- Among 9% students awarded **branch change** after freshmen year in IITB on the basis of grade points *2013*
- Ranked in **top 50 nationwide** in Technothlon, a school championship organized by Techniche, IIT Guwahati *2009*
- Ranked in top 1% statewide in National Standard Examination in Junior Science, conducted by IAPT *2009*

POSITION OF RESPONSIBILITY

Institute Student Mentor *Jun 2016 - Present*

Selected on basis of peer review and interpersonal skills as part of a team of 82 mentors from 368 applicants

- **Guiding 11 freshmen** focusing on academic and holistic development, and helping the transition to campus

EXTRACURRICULAR ACTIVITIES

Android	• **1st position** out of 158 teams in Aakash tab app development contest for residents of IITB	*2014*
	• Developed a multi-city cab/auto fare calculator which has **10,000+ installs**	*2013*
Robotics	• Designed and fabricated an autonomous self balancing robot using **PID control** mechanism	*2013*
	• Participated in autonomous line follower robot competition	*2013*
Trekking	• Completed a 5-day trek summiting Kedarkantha Peak, Uttarakhand (12,500 feet)	*2016*