

TEJAS DASTANE

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EDUCATION

University of Southern California

Master of Science in Computer Science.

Los Angeles, CA

August 2018 – May 2020.

University of Mumbai

Bachelor of Technology in Computer Engineering; GPA: 3.86/4 (8.95/10)

Mumbai, India

August 2014 – June 2018

EXPERIENCE

Indian Institute of Technology, Bombay

Software Developer Intern

Mumbai, India

March 2017 – September 2017

- Integrated Machine Learning algorithms such as Multi-layer perceptron and a Fuzzy Inference System with web technologies using JavaScript and created a “Virtual Lab” to demonstrate working of each algorithm in an interactive manner.
- Collaborated with 8 other team members to prepare a plan for designing the Virtual Lab for Machine Learning.

Indian Institute of Technology, Bombay

Web Developer Intern

Mumbai, India

January 2016 – April 2016

- Revamped UX of 1st Learning Object by incorporating UI design principles to reduce time spent per page by 30%.
- Developed front-end for 2 other Learning Objects of “Project OSCAR”, an IIT initiative, under Mrs. Anura Kenkre.

PROJECTS

Undergraduate Thesis – Indian Sign Language (ISL) Recognition

- Applied Face Recognition, Hand Extraction, Skin Color Segmentation and Morphology operations to pre-process images.
- Created grid-based feature extraction algorithm to extract features from hand region images.
- Analyzed dataset by converting data into 2D representation using PCA and t-SNE.
- Modelled a k-NN classifier to recognize ISL Hand poses with 99.7% accuracy; achieved 97.23% testing accuracy on gesture recognition by implementing a Hidden Markov Model, in a team of 4 mentored by Mrs. Kavita Kelkar.

Making a web portal for Computer Department’s Library – Designed a web portal for Computer Department library to simplify daily library functions for over 700 users, collaborating with 2 others and guided by Mrs. Suchita Patil.

Tic Tac Toe AI – Created an AI for Tic Tac Toe having 0% loss rate, to defeat humans by generating a minimax tree.

PUBLICATIONS AND RESEARCH WORK

- ‘An Effective Pixel-Wise Approach for Skin Colour Segmentation - Using Pixel Neighbourhood Technique’, International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), March 18 Volume 6 Issue 3. ISSN: 2321-8169, PP: 182 – 186.
- ‘Real-time Indian Sign Language (ISL) Translation’, IEEE Xplore [In press]. Presented at the 9th International Conference on Computing, Communication and Networking Technologies (ICCCNT).

SKILLS

- Programming Languages: Python (preferred), Java, C++ and C.
- HTML, CSS, JavaScript, Angular 2, ReactJs (basic), NodeJS, PHP, Flask, SQL, MySQL, MongoDB.
- Machine Learning, Image Processing, Computer Vision.

EXTRA-CURRICULAR ACTIVITIES

- Delivered a lecture on ‘Android Development’ to 200 students of 3rd year Computer department.
- Student Volunteer – Co-ordinated with Prof. Mamta Aggarwal from Department of Physics, University of Mumbai and 5 other volunteers to teach basic computer skills to 20 under-privileged students for 10 days.
- Intermediate written and conversational spoken proficiency in the Spanish Language.