

Shashank Srikanth

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Education

- 2016-2021 **BTech and MS by Research in Computer Science**, *International Institute of Information Technology*, Hyderabad, **CGPA: 9.69 / 10.0**.
- 2014-2016 **Senior Secondary**, *Amity International School, Saket*, Delhi, **95.8%**.
- 2013-2014 **Secondary**, *Amity International School, Saket*, Delhi, **CGPA: 10.0 / 10.0**.

Scholastic Achievements

- Dean's Merit List** Current Department Rank 2, selected in Dean's Academic Merit List for all the semesters (Awarded to top 5% performers)
- KVPY** Secured rank 560 in Kishore Vaigyanik Protsahan Yojana, a Govt. of India Initiative
- JEE Mains** Secured rank 871 in JEE Mains out of 1.2 million candidates
- ML** Secured top 100 all India rank in FlipkartGrid ML challenge

Publications

- 2019 **INFER: Intermediate representations for future prediction**, *Submitted to IEEE International Conference on Intelligent Robots and Systems (IROS)*.
Under review, First author paper
- 2019 **Understanding Risk-Taking Distracted Driving Posts on Social Media**, *Submitted to International AAAI Conference on Web and Social Media (ICWSM)*.
Under review, * (Title has been modified due to double blind review)
- 2019 **Saving Lives One Frame at a Time**, *Workshop on AI and its Impact on Society in Developing Nations, ICVGIP*.
Poster Presentation

Experience

- May 2018 - **Honors Student, Robotics Vision Lab**, *Prof. Madhava Krishna*, IIIT-H.
Present Implemented deep learning models to compute semantic, instance segmentation & disparity maps of outdoor scenes. Designed deep learning models based on LSTMs and CNNs to predict the future trajectory of vehicles in roads given the past trajectory for autonomous driving scenarios
- July 2018 - **Research Project**, *Prof. Ponnuram Kumaraguru*, IIIT-Delhi.
Present Implemented deep learning models based on 3D Resnets and WideResNets to classify videos as driving & non-driving. Wrote python scripts & scrapers to collect video data from Snapchat Maps using the SnapMaps API. Performed spatial & temporal analysis on the given data. Used transfer learning to train a deep learning based classifier that distinguishes between selfie & non-selfie images.

Aug 2018 - **Teaching Assistant**, *IIIT-H*.

Present **Operating Systems & Digital Signal Analysis:** The work involves taking tutorial and lab sessions, explaining concepts of given course to 2nd year undergraduate students

May 2017 - **Web Development Intern**, *SynapseIndia*, Noida.

June 2017 Developed a Custom Content Management System using MySQL, PHP & CakePHP. Implemented Payment Gateway using the PayPal API

Aug 2018 - **Student Developer**, *VLEAD*, IIIT-H.

Nov 2018 Built reproducible development environments using Vagrant and wrote shell scripts and config files for auto-deploying the various micro-services.

Projects

Computer Vision Computed the camera calibration matrix using Zhang's method. Reconstructed the 3D scene up to a scale given multiple views of the scene

Machine Learning Performed PCA on the given Faces dataset and computed the eigenfaces. Implemented popular classifiers like Naive Bayes, Softmax etc to classify the faces into different categories. Further designed a simple LSTM based architecture to perform time series prediction of Sine Waves

AI Bot Built a bot for playing 4*4*4*4 ultimate tic-tac-toe using algorithms such as minimax and alpha-beta pruning. Implemented custom heuristics, caching, iterative deepening search, caching etc. The bot placed **third** in the Bot championship conducted

Bash Shell Developed a shell in C using POSIX system calls. Implemented features like killing a process, input/output redirection, piping and signal handling

Networks Implemented a client server architecture using sockets with both persistent and non persistent connections. Also developed a proxy server with features such as threading, LRU caching, non-blocking etc.

Technical Skills

Advanced Python, C/C++, Matlab, PyTorch, Numpy, Matplotlib, Pandas

Intermediate Flask, SQL, Javascript, HTML/CSS, Scikit-learn

Worked Previously Tensorflow, OpenGL, WebGL, Caffe

Courses

Mathematics Linear Algebra, Probability, Discrete Structures, Group Theory, Complex Analysis

Computer Science Robotics & Computer Vision, Machine Learning, Deep Learning, Data Structures, Optimization Methods *, Databases, Algorithms, Artificial Intelligence, Graphics, Operating Systems, Software Design, Computer Networks, Formal Methods, Digital Signal Analysis, Digital Logic Design, Computer Architecture