Nilay Shrivastava

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An independent and self-motivated undergraduate with proven and tested software skills specially in AI and IoT.

WORK EXPERIENCE

Research Assistant
Multimodal Digital Media Analytics Lab (MIDAS), IIIT Delhi

09/2018 – Present

Achievements/Tasks
- Working on multi-modal deep learning models for speech synthesis under Dr. Rajiv Ratn Shah at IIIT Delhi.

Contact: Dr. Rajiv Ratn Shah – rajivratn@iiitd.ac.in

Intern
Samsung Research

05/2018 – 07/2018 *Bengaluru, India*

Achievements/Tasks
- Built an Efficient Recurrent Neural Network architecture for implementing features like Smart Reply and Doodle recognition for embedded devices.
- Wrote custom C++ Tensorflow operations for Tizen platform.

Head of Autonomous Systems
Team A.R.E.S, Nakshatra Club NSIT

10/2017 – Present

A.R.E.S is building NSIT's first Mars Rover as part of University Rover Challenge (teamares.ml)

Achievements/Tasks
- Successfully led the team to create Self-Driving software for Mars Rover. Utilised Deep Reinforcement Learning and Simultaneous Localisation and Mapping.
- Developed a new algorithm for running compute intensive RL algorithms on low cost hardware (research paper under review)

Research Intern
Zeg.ai

05/2017 – 08/2017

Zeg.ai is a computer vision startup working to create 3D models

Achievements/Tasks
- worked on Generative Adversarial Networks to create 3D voxels from 2D imagesbuilt the website.
- Built the website (https://zeg.ai)

Contact: Smile Sikand – Team leader at Zeg.ai, 880075072

EDUCATION

Bachelor of Engineering (Computer Engg.)
Netaji Subhas Institute of Technology

08/2015 – Present

SKILLS

C , C++, Lua, Python, JavaScript, ROS

Tensorflow, Pytorch, OpenCV, D3.js, Bokeh

PERSONAL PROJECTS

Qu.js - A JavaScript framework for Quantum Computing (07/2018 – Present)
- Qu.js is a library for writing programs in JavaScript for a simulated quantum computer. Currently it supports 8 qubit computation. It supports all basic Quantum gates . Provides a unified way to create programs that can run on IBM Q and Rigetti Quantum Computer. Code available at https://github.com/euler16/Qu.js

Fast Neural Style Transfer (01/2017 – 04/2017)
- Implementation of Stanford Computer Vision Group's paper.

Char-RNN (05/2017 – 06/2017)
- Trained an RNN to generate text like Einstein's Special Relativity. Using D3 and Bokeh I demonstrated the internal working (learning process) of LSTMs and GRUs. Wrote a blog post describing my approach (https://euler16.github.io)

Face Recognizer (09/2016 – 10/2016)
- Implemented the Eigen Face Recognizer from scratch in C++

ACHIEVEMENTS

Amongst top 10 in CS department
Consistently among the top 10 students in Computer Engineering Department at NSIT (Delhi University)

Smart India Finalists (03/2017)
Selected by Govt of India as part of Smart India initiative to create a warning system based on video streams of coast. (Reached the finals). Created a Deep Learning based system to automate the recognition task.

Speaker at PyData India Conference 2018 (08/2018 – 08/2018)
Gave A talk on Quantum Computing at PyData India. (11 - 12 Augus).

Kishore Vaigyanik Protsahan Yojna (KVPY 2013)
All India Rank 71. Got direct offer letter for direct admission in Indian Institute of Science.

National Talent Search Fellow (04/2012 – Present)
Qualified National Talent Search Examination-2011-12 (Organized by Govt. of India). Awarded Fellowship till PhD.

Junior Science Talent Search Fellow (04/2011 – Present)
Qualified JSTSE (organized by Govt. of Delhi). Attained rank - 71.