ShahRukh Athar

Education

2018– **Ph.D. Computer Science**, *Stony Brook University*, New York, USA.
GPA:3.97/4.00

2016–2018 **M.Sc Data Science**, *Skolkovo Insitute of Science and Technology*, Moscow, Russia.
GPA: 4.79/5.00

2012–2016 **B.Sc (Research) Physics**, *Shiv Nadar University*, Gautam Buddha Nagar, India,
Minor: Mathematics.
GPA: 8.23/10.0

Teaching Experience

Stony Brook University

Fall 2018 **TA**, *CSE101: Introduction to Computational and Algorithmic Thinking*.

Shiv Nadar University

Spring 2016 **TA**, *CSD-201: Introduction to Data Structures*.

Monsoon 2013 **TA**, *PHY-105: Introduction to Computational Physics I*.

Spring 2014 **TA**, *PHY-102: Introduction to Physics II*.

Monsoon 2014 **TA**, *PHY-105: Introduction to Computational Physics I*.

Publications

2020 ShahRukh Athar, Zhixin Shu and Dimitris Samaras. *Self-supervised Deformation Modeling for Facial Expression Editing*. 15th IEEE International Conference on Automatic Face & Gesture Recognition (FG 2020), 2020.

2019 ShahRukh Athar, Evgeny Burnaev, Victor Lempitsky. *Latent Convolutional Models*. International Conference on Learning Representations (ICLR), 2019.

2018 ShahRukh Athar, Abhishek Vahadane, Ameya Joshi, Tathagato Rai Dastidar. *Weakly Supervised Fluid Filled Region Localization In Retinal OCT Scans*. International Symposium on Biomedical Imaging (ISBI), 2018.

Internships

Summer 2020 Applied Scientist Intern at Amazon Lab126
Worked on 3D Face Models.

Summer 2017 Intern at SigTuple, Bangalore
Worked on weakly supervised fluid-filled region localization in Retinal OCT scans.

Summer 2016	Intern at Computational Materials Discovery Laboratory, Moscow Institute of Physics and Technology
	Worked on using deep learning in crystal structure and property prediction.
Summer 2015	Intern at Computational Materials Discovery Laboratory, Moscow Institute of Physics and Technology
	Worked on machine learning algorithms for crystal structure and property prediction. Created the Anduril neural network library.

Master's thesis

2018	Latent Convolutional Models
	In my thesis, I worked on a latent model of images that served as a strong universal prior for a wide variety of image restoration tasks.

Undergraduate thesis

2016	Predicting Amplitudes of the eA (Electron-Ion) interaction with Machine Learning
	For my undergraduate thesis I used neural networks to predict amplitudes of electron-ion collisions. The predictions of amplitudes is essential to study the structure of the nucleus of the ion.

Scholarships and Awards

2020	Accepted for the Doctoral Consortium at the 15th IEEE International Conference on Automatic Face & Gesture Recognition (FG 2020), 2020
2016-Present	Full Scholarship at Skolkovo Institute of Science and Technology
2012-2016	Full Tuition Fee Waiver at Shiv Nadar University

Programming Languages and Technologies

Languages	C, C++, Python, JavaScript, Matlab, Common Lisp
DL Frameworks	PyTorch, Keras, Tensorflow, Lasagne, Theano

Projects

Anduril
Anduril is a neural network library written in C++ for python.
Documentation: `http://srxdev0619.github.io/Anduril-stable/`
Code: `github.com/srxdev0619/Anduril-stable`

Input Generator
A webapp that generates input files for the USPEX algorithm.
Link: http://han.ess.sunysb.edu/input_generator/

Narsil
Narsil is an Octree library for use with the Sartre event generator.