

ShahRukh Athar

Education

- 2018– **Ph.D. Computer Science**, *Stony Brook University*, New York, USA.
GPA: 3.94/4.00
- 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*.

Programming Languages and Technologies

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

Publications

- 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.

Preprints

- 2019 ShahRukh Athar, Zhixin Shu and Dimitris Samaras. *Self-supervised Deformation Modeling for Facial Expression Editing* arXiv:1911.00735, 2019.

Internships

- 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.

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.

Scholarships and Awards

- 2016-Present Full Scholarship at Skolkovo Institute of Science and Technology
- 2012-2016 Full Tuition Fee Waiver at Shiv Nadar University