

Sudhanshu Srivastava

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SUMMARY

- MS in Mathematics followed by one year of work experience in Data Science, followed by a second (ongoing)MS in Computer Science with focus on Artificial Intelligence and Machine Learning.
- Strong research background, with experience performing research in industrial setting as well.

EDUCATION

University of Rochester, Rochester, NY

MS in Computer Science,

Anticipated May 2018

Focus: Artificial Intelligence and Machine Learning

- Relevant Coursework: Data Mining, Natural Language Processing, NSF Research Trainee Program on Data-Enabled Research into Human Behaviour and its cognitive and Neural Mechanisms (2 semesters), Machine Vision, Machine Learning, Human Computer Interaction.

GPA: 3.79/4.00

Indian Institute of Science Education and Research, Bhopal, India

BS and MS(Integrated), Mathematics

2010-2015

- Relevant Coursework: Calculus, Linear Algebra, Graph Theory, Differential Equations, Programming and Data Structures, MS Thesis on *Amenable Groups*.

WORK EXPERIENCE

Research Assistant, University of Rochester Medical Center

Oct 2017-May 2018

- Improving ThreadNet, an R application for visualizing and analysing organizational routines.
- Using ThreadNet to analyse complexity of healthcare routines.
- Part of NSF Funded Project.

Trainee Decision Scientist, Mu Sigma Inc., Bangalore, India

Jul 2015 -Jul 2016

- Part of the development team of muRx™, Mu Sigma's main analytics tool.
- Implemented Linear Regression, Logistic Regression, K-Means Clustering, Text Categorization using SVM, Maximum Entropy and Random Forests, Univariate Analysis.
- Received **Spot Award**, "For attention to detail in tasks assigned" in February 2016.

Teaching Assistant, Quantitative Finance with Python, Simon Business School.

Fall 2017

Teaching Assistant, Programming in Analytics, Simon Business School.

Summer 2017

Research Mentor for Summer Students

Summer 2017

- Mentored 4 students on 2 projects, with Prof Henry Kautz and Prof Chenliang Xu.

PROJECTS

PARK

Fall 2017

- Web-app for helping diagnosis of Parkinson's Disease using just a webcam.
- Wrote the backend machine vision algorithms that analyse patient videos and give a severity score.

Deep Cross-Modal Audio-Visual Generation

Feb-Apr 2017

- Generative Adversarial Networks for generating Audio and Images of Musical Instruments.
- **Accepted**, ACM Multimedia Thematic Workshop, 2017. **Acceptance Rate: 12.93%**.
- **Link:** <https://arxiv.org/abs/1704.08292>.
- This work won the first prize in Poster Competition held by CIRC, University of Rochester.

Deep Learning for tumour detection

Ongoing

▪ Deep Learning on Ultrasound images of Thyroid nodules.

The Lazarus Project(<http://www.lazarusprojectimaging.com/>)

Ongoing

▪ Deep Learning for image recognition of ancient manuscripts.

▪ **Abstract Accepted** at International Congress of Medieval Studies, 2017.

Diagnosis of Aphasic Patients

Jan-May 2017

- Deep Learning for diagnosing aphasia based on Audio and Transcript of a subject's speech.
- Obtained 83% Accuracy.

Preventing Public Safety Violations from Malicious Data Scientists

Oct - Dec 2016

- Analysed Crime Patterns and proposed preventive measures against strategic crime using Game theory.

TECHNICAL SKILLS

Languages: R, Python, MATLAB, C++, JavaScript, SQL, SAS. **Tools:** Git, MTurk, Keras, Torch, Tensorflow.

PUBLICATIONS

- L Chen*, **S Srivastava***, Z Duan and C Xu “Deep Cross-Modal Audio-Visual Generation”. ACMMM Thematic Workshop, Mountain View, CA, 2017. (* denotes equal contribution.)
- Nuffer Z, Kwak SJ, Bekal N, **Srivastava S**, Marini T, Bhatt S. “Quantifying Echogenicity of Solid Benign and Malignant Thyroid Nodules.” — 103rd Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, IL, 2017.
- Kautz et al, Machine Reading of Ancient Manuscripts, International Congress on Medieval Studies, Kalamazoo, MI, 2018.

AWARDS AND ACHIEVEMENTS

- **Won First Prize in Poster Presentation held by CIRC, University of Rochester** May 2017
- **Selected for NSF Research Traineeship Program**, University of Rochester.
One of the only three MS students (out of 15 total students). Aug 2016
- **INSPIRE Fellowship, Awarded by DST, Government of India** 2010-2015