

# NAMAN SHUKLA

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## EDUCATION

**University of Illinois at Urbana - Champaign, IL**

**May 2019**

**Graduate Research Scholar**

*GPA: 4.0 / 4.0*

Master of Science in Industrial Engineering (**Advanced Analytics – CS Thesis**)

Courses: Machine Learning, Deep Learning, Big Data & Clustering, Algorithms for Data Analytics

Computer Vision, Database System, Soft Computing, Stochastic Processes, Optimization

**Indian Institute of Technology, Hyderabad, India**

**May 2017**

Bachelor of Technology (B.Tech.) in Chemical Engineering

*CGPA: 8.54/10*

Entrepreneurship Minor (**Excellence in Academics**)

## EXPERIENCE

**Data Science Research Intern – DeepAir, London**

**Summers 2018**

- Architected end to end pipeline for pricing module primarily based on reinforcement learning
- Implemented simulator environment for RL – agent to train on using Gated DeepAir Net (GDN) classifiers
- Developed module specific packages for processing and data engineering purposes

**Collaborative Researcher – Ritsumeikan University, Shiga, Japan**

**Summers 2016**

- Used evolutionary techniques like Genetic Algorithm and Swarm optimization for protein optimization under the guidance of Professor Takeshi Kikuchi at Computational Biochemistry lab

**University of Tokyo's Design and Innovation Program Member– Tokyo, Japan**

**Summers 2016**

- Selected among top 20 students worldwide to design innovation workshop for high school students of Miyazaki, Japan (JASSO Scholarship provided by the Japanese government)

## PUBLICATIONS

**Adaptive Model Selection Framework: An Application to Airline Pricing**

**June 2019**

Naman Shukla, Arinbjörn Kolbeinsson, Lavanya Marla, Kartik Yellepeddi

- 36th International Conference on Machine Learning [arXiv:1905.08874]

**Dynamic Pricing for Airline Ancillaries with Customer Context**

**May 2019**

Naman Shukla, Arinbjörn Kolbeinsson, Ken Otwell, Lavanya Marla, Kartik Yellepeddi

- 25th ACM SIGKDD Conference on ACM Knowledge Discovery and Data Mining [arXiv:1902.02236]

## ACADEMIC PROJECTS

**Cycle Generative Adversarial Neural Network (Python, Tensorflow)**

**Jan 2018 – May 2018**

- Implemented cycle consistent image to image translation with GAN
- Used UIUC – NCSA Blue Waters K80 GPU dedicated cluster for training network
- Reported UC Berkley's AI Research Lab with collaborative repository – project guide : Prof. Svetlana

**Hand Written Image Recognition of USPS Dataset (Python, MATLAB)**

**Aug 2017 – Dec 2017**

- Extracted features through kernel PCA on 7K images from USPS dataset
- Implemented classification by training linear and kernel SVM with features produced by kernel PCA
- Achieved 97.3 % accuracy on image classification

**Graphical User Interface Optimization Toolbox (MATLAB)**

**May 2015 – Jan 2016**

- Created a platform independent toolbox for model identification in biochemical reaction
- Used algorithms for parameter estimation : Generic Algorithm, particle swarm optimization, BAT algorithm
- Tested on lab data from IIT Bombay under the guidance of Professor Giri

## TECHNICAL SKILLS

**Languages**

Python, R, C/C++, Java, MATLAB, FORTRAN, SQL, HTML, PHP

**Tools**

MySQL, Postgres, Oracle SQL Developer, Git, SAS, Docker

**Frameworks**

TensorFlow, Pytorch, Keras