

# Akarsha Sehwag



akarsha285@gmail.com



+91 9971408507



github.com/aksh98



linkedin.com/in/akarshasehwag/

## Education ———

B.Tech | Computer Science Engg IIIT Delhi | 2019 | GPA:7.6/10

Senior Secondary Board (Class XII) Delhi Public School | 2015 | 92 %

Secondary Board (Class X) Adarsh Public School | 2013 | 10/10

## Skills —

#### **TOOLS AND TECHNOLOGIES:**

Pandas • Pytorch • Tensorflow •
OpenCV • Git • GeoPandas • PySpark •
sklearn • Brandwatch • MongoDB •
Kafka • Kibana • MySQL •
ElasticSearch • AutoCAD • h3/s2

#### PROGRAMMING LANGUAGES:

Python • C • C++ • Java • LATEX • SQL

#### **SPOKEN LANGUAGES:**

English, Hindi, German(A2 level)

## Achievements ——

- Dean's Award for Innovation in Research and Development.
- Scholarship worth \$2800 for attending ElasticON in San Francisco.
- Academic Excellence Award(School)
- School Topper in NSTSE (Rank <300 All India level).

## Extra-Curricular —

- Community Organizer | Elastic, Delhi
- Organizer & Mentor | Django Girls, Lisbon
- Core Team | PyLadies, LinuxChix
- Coordinator | Creative Arts Club
- Badminton Captain | Sports Council '16
- Event Head | Tech-fest'17
- Organizing Team | Tech-Fest'16

### Work Experience

#### June'19 - Now Associate Data Scientist | Airtel X Labs

- Engineering features for Customer Segmentation of 300M+ active Airtel users to suggest relevant packs to users and reduce the pipeline bandwidth from 7M sms/day to <0.2M relevant sms/day.
- User Employment-type identification for targeted marketing campaigns.

#### Jan-Apr'19 Artificial Intelligence Intern | UnternehmerTUM, Munich

- Created a working prototype of our product, that lets foreign tourists experience a city based on their interests through tours guided by an autonomous (Level 4) car. Also, generated useful insights for companies from user interviews & product testing.
- Implemented Agile development principles along with design thinking, User Story Map & solution validation methodologies.
- Communicated cross-functionally in a diverse team and drived the engineering efforts in the team.

Company sponsors: Audi, BMW and ADAC. Reference: Dr. Afsaneh

#### May-Dec'18 Data Science Intern | Stanford Univeristy

- Predict time series data on national level and map it to all the states. Achieved state-of-the-art results. (Journal in writing)
- Predicted change in contribution and productivity of STEM workers in the financial sector using NLP models. *Reference:* <u>Dr.Christos</u>
- Worked with <u>Prof. Prithwiraj Choudhury</u> from Harvard Business School on the analysis & predictions of salary variations w.r.t. country and companies.

#### Jan-Dec'18 Undergrad Researcher | Image Analysis and Biometrics Lab

- Achieved state-of-the-art on deceiving Face PAD algorithms. (More than 30% improvement in the accuracy/PAD error rate.)
- Developed a new architecture of GANs to input two images and generate morphed images.
- Worked on Attribute Classification in Low-Resolution images. Advisors: Dr. Richa & Dr. Mayank

#### May-Dec'17 Chief Operations Officer | Invadex

A ML SaaS product - Alongside product development, responsible for evaluating internal workforce, to bring in the best value to our partners and handling the operations.

- Represented it in Web Summit'17 (Portugal) and got Malaysian investors for \$0.5M.

## Publications

## 2019 Deceiving the Protector: Fooling Face Presentation Attack Detection Algorithms

IAPR International Conference on Biometrics, Greece

## 2019 Deceiving Face Presentation Attack Detection via Image Transforms

IEEE International Conference on Multimedia Big Data, Singapore

2018 Rise of the "Quants" in Financial Services: Regulation and Crowding Out of Routine Jobs (Acknowledgment)

## Projects

- **Detecting Combined Identities**: Used GANs to generate the morphed images/videos and Deep Learning models like VGG'16 to detect forgery.
- **Github User Recommendation system:** Recommended Github Users for Github Projects/Organizations based on the user's activities in Github and StackOverflow.
- Audio Super-Resolution: Used 5 Machine Learning models (GANs, Hidden Markov Model, AutoEncoder, Convolutional Neural Network and Long Short-Term Memory Network) to generate a high resolution signal from a low resolution audio with a smaller sampling rate.
- Other Machine Learning / Development projects listed here: [Github Link]