

# SHREY SHAH | RESUME

- » Status: Seeking admission to a graduate degree during the fall 2022 intake period.
- » Degree: B.E.(Hons) in Computer Science, M.Sc. in Biological Sciences.
- » Skills: Golang, Kubernetes, Docker, Node JS, React JS, Java, Python, Golang, Keras, Tensorflow
- » Interests: Software Development, Deep Learning specifically Biomedical Image Analysis



## » » » Education

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|-------------|--|--------------|
| 2015 - 2020 | <b>M.Sc. Biological Science and B.E. (Hons.), Computer Science</b>   | BITS Pilani  |
|             | <ul style="list-style-type: none"><li>» Thesis: Lung Cancer Detection using CT Scan Images at Hiroshima University</li><li>» Current CGPA - 9.26</li><li>» <u>Relevant Coursework</u>: Machine Learning · Data Structures and Algorithms · Object Oriented Programming · Database Management · Operating Systems · Computer Architecture · Theory of Computation · Neural Network and Fuzzy Logic · Discrete · Structures Microprocessor &amp; Interfacing · Principles of Programming Language · Design and Analysis of Algorithms · Computer Networks · Cryptography · Compiler Construction</li></ul> |              |
| 2014 - 2015 | <b>ISC - Indian School Certificate, Grade XII</b>  | Zydus School |
|             | <ul style="list-style-type: none"><li>» Passed with Distinction with 95%, ranked #3 in school</li></ul>  |              |

## » » » Publication

- |            |  |                      |
|------------|--|----------------------|
| April 2020 | <b>Lung Cancer Detection</b>   | Hiroshima University |
|            | <ul style="list-style-type: none"><li>» Shrey S.B., Hakim L., Kavitha M., Kim H.W., Kurita T. (2020) <b>Transfer Learning by Cascaded Network to Identify and Classify Lung Nodules for Cancer Detection.</b> In: <i>Ohyama W., Jung S. (eds) Frontiers of Computer Vision. IW-FCV 2020. Communications in Computer and Information Science, vol 1212. Springer, Singapore</i></li></ul> |                      |

## » » » Experience

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|--------------------|---|----------------------|
| Jan/'20 - Present  | <b>Intern, Member of Technical Staff</b>  | Nutanix              |
|                    | <ul style="list-style-type: none"><li>» Working with the Microservices Platform Team to help onboard the nutanix services and microservices on the platform.</li><li>» Working with docker containers to implement a python automation script which generated a tar package with the required files to run on the platform.</li><li>» Worked on various tasks which involves coding in python and golang.</li></ul>   |                      |
| Aug/'19 - Dec/'19  | <b>Research Intern</b>  | Hiroshima University |
|                    | <ul style="list-style-type: none"><li>» Worked on Lung Cancer detection using CT scan Images.</li><li>» Created a Cascaded network to forward the suspicious nodule containing images to the classifier network and discard the non-suspicious images. The classifier helped segregate the nodules into benign and malignant.</li><li>» Work was accepted as a conference paper in IW-FCV 2020 which was later published as post conference proceeding in springer.</li></ul> |                      |
| May/'19 - July/'19 | <b>Machine learning Intern</b>  | JP Morgan Chase      |
|                    | <ul style="list-style-type: none"><li>» Trained various models with different algorithms, compared the accuracy and tuned the hyperparameters for best results.</li><li>» Publicly available dataset from yahoo finance and internal dataset from JPMC was used for the training purpose.</li><li>» Created a GUI for enhanced user interaction for the same using tkinter library in python.</li></ul>   |                      |

## »»» Projects

Mar/'21 - Jul/'21

### **Walking Buddy - Web Development Project**

- » Designed a website where one can register as a walking buddy by choosing a time slot and place or view other people to team up with for a particular time slot and place.
- » Learned Javascript and various libraries like ReactJS and ExpressJS for the front-end development while backend was done in Java springboot.

Jan/'19 - April/'19

### **Target Detection using EEG Signals**

- » Detecting p300 peaks obtained in the EEG signals of the brain. ConvLSTM model used to identify and classify the peaks into p300 and non-p300.
- » Tried various methods to reduce the bias of dataset eventually leading to a better model accuracy over the one mentioned in the research paper.

Jan/'19 - Apr/'19

### **Compiler Construction**

- » As a part of the course Compiler Construction, had to implement a compiler from scratch for a uniquely defined language.
- » The compiler could parse the language code and output errors if any.

Oct/'18 - Dec/'18

### **Race Prediction from facial Images**

- » Predicted the race of the person from the facial Images cropped and centred.
- » 2 Models were used: Transfer Learning model pre-trained on ImageNet dataset and a Deep Learning model trained from scratch on UTKFace dataset. Compared the accuracy and training time for both the models.

Oct/'18 - Dec/'18

### **Lung segmentation from CT scan images**

- » Lungs were detected in CT Scan Images, training data used was CT scan images and hand labelled masks to identify the lungs.
- » U-net type architecture was trained on the masked images using dice coefficient as loss function owing to imbalance in masks (small lung masks as compared to the full image).

Apr/'18 - May/'18

### **Neural Network construction in Scala**

- » As a part of the course Principles of Programming Language, had to implement a two layered convolutional neural network.
- » Convolutional, pooling, activation and normalization layers were implemented in scala from scratch.

## »»» Position of Responsibility

Mar/'17 - Dec/'17

### **Coordinator, Gaming Club BITS Pilani**

- » I worked as a coordinator for the event Ignition in BOSM 2017 which saw the participation of over 200 students and lasted over 4 days

## »»» Scholarships

2015 - 2020

### **Inspire Scholarship**

- » INSPIRE Scholarship by Govt.of India (awarded to top 1% Sciences UG students).

2016 - 2017

### **Merit Scholarship**

- » Merit Scholarship by BITS Pilani (awarded to top 25 students across campus).