## **AYUSH GARG**

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## **EXPERIENCE**

## Data Scientist, HP Inc (R&D)

₩ Sep 2018 - Jul 2021

Pangalore, India

#### **MLOps**

March 2021- July 2021

- Created a framework to standardize architecture of ML projects to reuse code, data and models across multiple teams
- Different inputs and models across different hardware could be stitched together into a pipeline & used for pre-processing, training, validation
- Provided interfaces for the modules and abstracted out the event and artifact logging
- Resulted in cohesive projects that can borrow from each other while increasing maintainability

#### **Predifix**

**M** Oct 2018 - July 2021

PyTorch, pandas, numpy

- Tool to guide Customer Support agents for faster resolution of printer/PC related issues
- Used Long Short Term Memory (LSTM) based Deep Neural Network (DNN) to train a model on 200K tickets
- Helped reduce Average Handling Time by approx 27%

## Software Engineer, Centurylink

## Aug 2015 - Sep 2018

Pangalore, India

#### DeepAssist

## Aug 2017 - Aug 2018

Tensorflow, Numpy, Flask, NLTK, MySQL, AngularJS

- Recommendation engine to increase the efficiency of Ticketing system (*Ticket=issue raised by end user*) by suggesting steps for ticket resolution
- Used Attention based LSTMs to determine ticket context and recommend the most appropriate steps by training on historical tickets
- Model reached an accuracy of about 83%

## **PROJECTS**

#### Vespid - Serverless platform to host Vertines

Oct 2021-Present

♥ Illinois Tech

- Virtines abstraction to allow individual functions to run in lightweight, virtual environment
- Created a platform, Vespid, that manages the lifecycle of Virtines and provides CLI and GUI to interact with the serverless functions
- Vespid is 30 times faster than OpenWhisk standalone tool

### Hate-Speech Detection Using Weak Social Supervision

**♀** Illinois Tech

- Text based classification engine to identify hate-speech for social media networks using Weak Social Supervision
- Weak features (likes, comments) generated for unlabeled data supervise the classification of labelled data
- Trained a BertClassification model on Twitter Hate Speech dataset
- With supervision, the f1 score increased by 8%

## **EDUCATION**

# Master's in Computer Science Illinois Institute of Technology, Chicago, US

4.0/4.0

• Courses Taken: Adv Database Adv OS
Cloud Computing Serverless Computing
S/W Architecture Adv Algo

- TA for OS
- TA for Online Social Network Analysis

## B.Tech in Electronics & Comm Engg Delhi Technological University, Delhi, India

**Spring 2015** 

3.5/4.0

- Organized Student Interest Groups & IEEE Students' Branch activities and taught at workshops
- Organizing Member in DTU Tech Fest

## **SKILLS**



## **ACHIEVEMENTS**



#### Patent-pending

Machine Learning Based Determination of Troubleshooting Routes Dependent on Product Feature- PCT/US2020/018268



#### **Paper Presentation**

"Learning optimal navigation algorithms from customer support case notes" in DSKD (Data Science Conference, HP)-2019



#### **Paper Presentation**

"Extracting resolution steps from the unstructured logs" in DSKD (Data Science Conference, HP)-2019



### AngelHack

Won Hypertrack challenge at AngelHack Bangalore Hackathon 2018 https://www.hackathon.io/trek-o-hun1

## **HOBBIES**







