AYUSH GARG

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EXPERIENCE

Data Scientist, HP Inc (R&D)

Sep 2018 – Jul 2021 Bangalore, India

MLOps

March 2021– July 2021

- Created a framework to standardize architecture of ML projects to reuse code, data and models across multiple teams
- Input data and models spread across different hardware could be stitched together into a pipeline & used for pre-processing, training, validation
- Resulted in cohesive projects that can borrow elements from each other while increasing maintainability

Predifix (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 Bangalore, India

DeepAssist (Aug 2017 – Aug 2018)

Tensorflow 1.0, Numpy, Flask, NLTK, MySQL, AngularJS

- Recommendation engine to increase the efficiency of Ticketing system by suggesting steps for ticket resolution using Neural Network based models
- Used Attention based LSTMs to determine ticket context and recommend the most appropriate steps

eDeviceConnect (Feb 2016 – Aug 2017)

- Tool to provide manual and automated testing platform for mobile devices
- Created an IDE to upload, test and run BDD projects for automation testing
- Reduced testing time by 150 hrs/month by allowing remote availability of physical devices

PROJECTS

Vespid - Serverless platform to host Vertines

Oct 2021-Present Illinois Tech

- Virtines - new 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

Benchmarking Storage Access Patterns – BeeGFS and CephFS

May 2021 Illinois Tech

- Assess performance and evaluate system overheads of 2 parallel and distributed file-systems: BeeGFS, CephFS
- Benchmarked on varying native file-systems (xfs, ext4, BTRFS) with different workloads and configurations on a cluster of 4 nodes
- Both file-systems had almost no CPU or network overheads with ext4 giving the best results achieving 10% faster speeds over average

EDUCATION

Master's in Computer Science

Illinois Institute of Technology, Chicago, US

Spring 2022 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

Python, Pytorch, Tensorflow 1.0, Pandas, Jupyter, JIRA, Git, MySQL, MongoDB, Serverless Computing, Data Structures, Parallel File System, Distributed File System, System Design

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