



Rajeev Sharma

AI Tech Lead

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Summary

I am an AI Tech Lead at HCL. Passionate about the world of Data Science. I have over 4.5 years of experience developing software architectures specifically in the field of Textual Recognition/NLP/Object Detection/Facial Feature Extraction. I am extremely focused on my work and have high attention to detail from conceptualization to execution. Knowledge of end-to-end technologies enables me to solve customer requirements from multiple angles, end-users, design, and development. My approach is always towards providing scalable and efficient solutions, with the efficient use of hardware provided. I seek a challenging and rewarding role in my career.

Work experience

15 Mar 2021 - Present

AI Technical Lead (R&D)

HCL Technologies

Working on the LISA AI platform. Below are some of the key architectures I have worked upon:

- Implemented facial recognition using MTCNN research paper-based FaceNet. The model will target detecting different people in the customer's dataset in the production.
- Deployed a Single Shot Detector(SSD) based object detection model in production for detection of more than 80 classes of objects for the customers.
- Created handshake between customer's secure data stored on Azure Cosmos DB as Blobs and the REST APIs endpoints for various processes.
- Updated most CPU-based code to work with Nvidia's V100 instance GPUs on Azure Cloud.
- Setup and prepared the Nvidia-GPU-azure instance for running all our code on the on-cloud fast NVIDIA GPUs
- Performance optimization of code using NUMBA
- Worked on state-of-the-art object depth detection from a single shot 2D image.

14 Jan 2019 - 12 Mar 2021

Software Engineer - AI and Robotics

NVIDIA

Working in the core Isaac Robotics Team at NVIDIA. Below are some of the key tasks I worked upon:

- NLP based conversational AI text-to-speech bot for the robot application with CUDA and TensorRT high-performance computing architecture for the client.
- Converted pre-trained models to ONNX format to be highly optimizable for Clients.
- Optimized already existing models with hyperparameter tuning, transfer-learning, and converting the models to Open Neural Network Exchange (onnx) format.
- Developed a chatbot for automated Waveglow/Tacotron model testing.
- Implemented asynchronous task queue based message passing using CELERY

- Worked on QVS and generating reports for Stress/PERF/CBTP and ADHOC-based testing.
- Developed an NLP-based documentation checker tool.
- Driving the process workflow and generating/reporting Daily/weekly statistics based on updated changes.
- Took active part in crowdsourcing in NVIDIAs QVS automation framework.

1 Feb 2017 - 8 Jan 2019

Associate Engineer - Machine Learning

Jade Global

Working in the core Kånverse AI Team at Jade Labs. Below are some of the Job roles I worked upon:

- Built the core of Kånverse Chatbot using NLP-NER.
- Worked on a story-flow mechanism using sequence-to-sequence and End-to-End Memory Networks.
- Worked on Documentation Extract tool using SpaCy and Sklearn.
- Extracted end-user sentiments - Pos/Neg score based on feedback data collected.
- Worked on Microsoft Azure Machine learning/VM container for Cloud-based cognitive services

Education

2013 - 2017	B.Tech - Computer Science CHITKARA UNIVERSITY Score: 7.38 GPA
2011 - 2013	Higher Secondary - Non Medical MGN Public School Standard XI and XII. Score: 80%
1998 - 2011	Junior Secondary - Metric St. Joseph's Boys' School From Nursery upto X standard. Score: 90%

Skills

Leadership/Collaboration	
Python	
NLP/CNN/OpenCV	
RESTAPIs	
LINUX (Ubuntu)	
GIT/GITLAB/Gerrit	
Data Structures	
Machine Learning/Deep Learning	
TensorFlow/PyTorch/SpaCy/Keras	
Data Processing/Feature Engineering	

Tools and Technologies

- SQL/NoSQL/MongoDB
- Tools: PyCharm/VS Code/Anaconda/Jupyter-Notebooks/Google Colab/Notepad++/Microsoft Excel
- Hands-on experience working with Cloud Platforms: AWS/Microsoft Azure (VM & Cognitive Services API Embedding)
- Good Python Scripting/debugging skills
- Sphinx - Documentation generation tool
- Agile Methodology
- Bazel (build tool)
- DevOps tools: Jenkins/Ansible/Docker Containers/Slack/Microsoft Teams/Microsoft Planner

SELF WORK

2020 - Dec - Present

Kaggle

<https://www.kaggle.com/rajeevsharma993>

Experimentation has always been a key aspect of my learning. I use Kaggle as my battleground for the same.

2018 - Present

LITDataScience

<https://github.com/LITDataScience/>

AI excites me a lot. This made me explore more towards the arena of Computer Vision, NLP, and the Extraction of useful Textual information out of it.

Created my own GitHub with multiple repos related to AI.

Awards and Recognition

1. Rookie of the year - Jade global (2018)
2. Innovation award - Jade Global (2018)

Certifications

- NLP
- Computer Vision

Volunteer Experience & CSR

- Setup a Robotics Booth for Family Day - NVIDIA
- Took active part in Tree Plantation Activity with the Team - Jade Global
- Organized a donation booth for malnutrition children - Jade Global
- Took active part in supporting the blood donation campaign - Jade Global

Interests

1. Philanthropy
2. Chess
3. Stock Market
4. Computer Gaming