



# Harsh Verma

San Francisco Bay Area

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## Summary

#Let's talk AI :). 7+ years of Versatile experience in AI Tech Industry. "Future belongs to those who see possibilities before they become obvious", I Believe in three P's of professional life : passion, persistence and people to learn, grow, solve problems mutually. My zeal to make things happen defines me as "Researcher by passion."

Portfolio Web Link: <https://iamharshverma.com>

GitHub Profile: <https://github.com/iamharshverma>

- Passionate about building intelligent machines and distributed system designs.
- Enthusiastic about Entrepreneurship, Startup culture and Big Data product companies.
- Experience and expertise in large-scale production Machine Learning systems, AI, Big Data, NLP, Deep Learning, Computer Vision, ML pipeline solutions using TFX and Kubeflow, SparkML
- Experience with building high-volume real-time data streams distributed data platforms, such as Spark, Kafka, Zookeeper, ELK (Elasticsearch, Logstash, Kibana).
- Experience with deep neural network architectures and frameworks like TensorFlow, Kubeflow, SparkML.
- Experience with distributed computational frameworks (YARN, Spark, Hadoop, Kubernetes, Docker)
- Big Data : Recommendation systems, Data Pipeline Google cloud machine learning, Pyspark, Analytics.
- Master's in Computer Science specialization in Big Data Science, ingraining into core aspects of Natural Language Processing(NLP), Machine Learning(ML), Artificial Intelligence(AI).
- Love to learn new technologies, meet people, manage events and share experiences.
- Campus Editor LinkedIn(University of Texas)

Building strong network relations.

Always open to talk about Ideas, Research, Entrepreneurship, Conference events and Data/Machine learning solutions.

Have an amazing startup Idea, research, event/conference where you would like to meet and talk; feel free to drop me a message or reach out at-> harshverma59@gmail.com

## Experience

### Senior Staff Software Engineer

Palo Alto Networks

Aug 2021 - Present (6 months +)

- Working at the intersection of Big Data Science and Engineering.
- Design and build batch and real-time ML data pipelines with data processing tools in Google Cloud Platform, Pyspark, BigQuery, Airflow, Dataproc.
- Experience in building high-volume real-time data streams distributed data platforms, such as Spark, Kafka, Zookeeper, ELK, Kubernetes based systems.

Tech Stack: PySpark, Machine Learning, Scala, Google cloud platform

## Staff Software Engineer

Palo Alto Networks

Aug 2020 - Aug 2021 (1 year 1 month)

- Scaling Real time Data Intensive and ML Based Systems to production.

## Machine Learning Engineer

Hypergiant

Sep 2019 - May 2020 (9 months)

As part of Hypergiant Sensory Science Machine Learning Team worked on creating a metrics based pipeline for real time video detection and tracking system.

- Machine Learning Video content similarity using Faiss facebook lib.
- Worked to build Face detection Module on top of real time data.
- Designing and Developing real time Machine Learning/Artificial Intelligence Pipeline.
- Designing Metric Evaluation, Model Versioning Pipeline.

Tech Stack : Machine Learning, AI, Computer Vision, YOLO-V3, Tensorflow

## Graduate Research Assistant

The University of Texas at Dallas

Aug 2019 - Jan 2020 (6 months)

Worked as an individual researcher under prof Dr. Latifur Khan (Big Data Lab) in the area of secure IOT, Big Data, DroneTech, DeepLearning, Edge Computing, Real Time Systems.

- Research Work : Secure Real-Time Heterogeneous IoT Data Management System vision paper published in IEEE International Conference on Trust, Privacy and Security in Intelligent Systems.

- Publication Link : <https://ieeexplore.ieee.org/document/9014355>

[http://www.sis.pitt.edu/lersais/tps/2019/accept\\_papers.html](http://www.sis.pitt.edu/lersais/tps/2019/accept_papers.html)

## Big Data Software Engineer

Palo Alto Networks

May 2019 - Aug 2019 (4 months)

Big Data ML frameworks Development : POC on Distributed Machine Learning System for Multi App-Id prediction over massive traffic logs Google Cloud Platform.

Prog Lang : Scala, Java, Python

Tech Stack : Tensor-flow, Google-ML, Elastic-Search, Spark, Hadoop, Google Cloud Platform

## Software Engineer

Hike

May 2015 - Aug 2018 (3 years 4 months)

Prog. Lang : Java | Python

Data Science :

\* Big-Data Technologies and Machine Learning.

\* Extended content-tagging modules(Video/Image : Spam/Explicit content Detection)

- \* Developed Celebrity/Face Detection and recognition module
- \* Content Similarity Detection(Images[Densenet], Text[fastText]), ranking & recommendation system.
- \* Backend DB for data flow (Cloud-Spanner, Mysq)
- \* Built Modular Auto-Deployment Pipeline for various projects(Jenkins, fabric, Supervisor)
- \* Created scripts to generate relevant data flow on stage(test env)

Server/Tools & Engineering Development :

- \* Auto Deployment Module : Multiple instances parallel execution, deployment using Ansible.
- \* Performance Engineering at Hike
- \* Developing In-house Performance/Load scale Framework(HikeRunner)
- \* Building CI Pipeline using Jenkins for performance automation.

## **Software Engineer Intern**

Hike

Apr 2015 - May 2015 (2 months)

Diving into Start-up Industry and learning existing frameworks.



## **Research And Development Intern**

Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO)

Jan 2015 - Apr 2015 (4 months)

Worked on research-cum-development under eminent scientist 'Dr. Harish Chandra Karnatak'.

Key Research Areas : Big Data Analytics in GIS

Roles and Responsibilities :

- Database management and Integration of Modular Maps using Open Layer API, Geo-server, PostgreSQL.
- API's to trace any location coordinate to enable specific data download and analysis.
- Implementation of Bhuvan and Google maps API in navigation search framework.
- Development of modules necessary to analyse spatial data in an efficient way supporting various filters and graphical views.
- Worked on database layer using PostgreSQL, enhancing existing DB layer and adding new functionalities.
- Developing presentation layer modules for web view using Advance Java and J-Query.



## **Mozilla Firefox Ambassador**

Mozilla India

Feb 2014 - Mar 2015 (1 year 2 months)

Roles and Responsibilities :

- To bridge the Gap between college and Firefox new upcoming Technology , Firefox OS.
- Manage and organise University level Firefox events.

## **Education**



### **Stanford University Graduate School of Business**

Stanford GSB Executive Business Program, Business Innovation, Leadership & Entrepreneurship

Sep 2021 - Sep 2022  
Business Administration and Management.  
Leadership and Entrepreneurship.  
Critical Analytical Thinking.  
Financing Innovation: The Creation of Value



## **The University of Texas at Dallas**

### **Master of Science - MS, Computer Science (Data Science)**

2018 - 2020

Masters in Computer Science specialization in Data Science Track(AI, NLP, Deep Learning, Big Data).  
Research Area: Secure Real time streaming Data Management Solutions using AI, computer vision and Deep learning.

#### Courses Taken:

Machine Learning (PHD/QE course), Natural Language Processing, Implementation of Data Structure & Algorithms, Big Data, Database Design, Information Retrieval, Design and Analysis of Algorithm, Deep Learning (CNN), Artificial Intelligence, Virtual Reality, Computer Vision.

#### Research Work :

<https://ieeexplore.ieee.org/document/9014355>

Secure Real-Time Heterogeneous IoT Data Management System vision paper published in IEEE International Conference on Trust, Privacy and Security in Intelligent Systems.



## **Uttarakhand Technical University**

### **Dehradun Institute of Technology | B.Tech(Hons), Computer Science & Engineering**

2011 - 2015

B.Tech(Hons.) in Computer Science & Engineering

Academics : Among top 0.1 % students: Ranked 3rd in University(dean academics list)

#### Courses Taken:

Artificial Intelligence, Design and Analysis Of Algorithms, Operating System, Data Structures, Advance Data Structure, Object-Oriented Programming, Advanced Java Programming, Data Base Management System.



## **Kendriya Vidyalaya**

### **High School(HSC) And Senior Secondary(SSC), Science Stream**

2008 - 2011

HSC: 2009 SSC: 2011

- Awarded Certificate of Merit from CBSE Board for being among 0.1% of academic achievers.



## **Stanford University Graduate School of Business**


### **Stanford GSB LEAD Business Program (Gamechangers Cohort), Innovation, Leadership and Entrepreneurship**

Sep 2021 - Present

Innovation, Leadership and Entrepreneurship


## Licenses & Certifications

 **Advance Java Oracle Web Development Program** - NIIT Technologies


 **Data Science Foundations: Fundamentals** - LinkedIn  
ATUWkqYx\_D9oKCcKI\_o1oukbt5s3

 **Python for Data Science Tips, Tricks, & Techniques** - LinkedIn  
Ab4z99nbCU9QCWX03C1jdaq0IM6fG


 **Building a Recommendation System with Python Machine Learning & AI** - LinkedIn  
ASikvg\_q6QYafdcCVx6cnemOaayp

 **Elasticsearch Essential Training** - LinkedIn  
AW0oD8OAg9ioVpfkYI0APInSq\_PH

 **Docker for Java Developers** - LinkedIn  
AQ1bfUsq7vhh6xQJRg4MCp6Cuw2o

 **Optimizing Python Services** - LinkedIn  
Ab40IMvse8TJ9rKhnl4\_zqA6bwZ7

 **Data Science Foundations: Python Scientific Stack** - LinkedIn  
AemrnAYDm9O3CvkZo7bloxY7QmqA

 **NLP with Python for Machine Learning Essential Training** - LinkedIn  
AerWylAdoJ1nesys\_QUyG1sgP1Lt

 **Python: Design Patterns** - LinkedIn

 **NumPy Data Science Essential Training** - LinkedIn

 **pandas for Data Science** - LinkedIn


 **Machine Learning A-Z™ Hands-On Python** - Udemy  
UC-9PHTAB18

 **Deep Learning: Image Recognition** - LinkedIn

 **How Google does Machine Learning** - Coursera

VAJGTMZ4BCYE

 **Big Data: University of California San Diego** - Coursera  
HUEPQYPK7MH8

 **Big Data Modeling and Management Systems : University of California San Diego** - Coursera  
KNEKBLY8YUPB

 **Google Cloud Platform Fundamentals: Core Infrastructure** - Coursera  
Q6R2BYAHE6TW


 **End-to-End Machine Learning with TensorFlow on GCP by Google Cloud** - Coursera  
BR367FYCNXVC

 **Production Machine Learning Systems by Google Cloud** - Coursera  
LYS54WAANPR2

 **Image Understanding with TensorFlow on GCP by Google Cloud** - Coursera  
J4BNYKXAZHXV

 **Sequence Models for Time Series and Natural Language Processing by Google Cloud** - Coursera  
QHURQNHC47MP

 **Recommendation Systems with TensorFlow on GCP by Google Cloud** - Coursera  
NE22GL7R94T6

 **Advanced Machine Learning with TensorFlow on Google Cloud Platform, a 5-course specialization by Google Cloud** - Coursera  
9NP65LRC63C4

 **Udacity Computer Vision Nano-degree Program** - Udacity


 **Udacity AI in Healthcare Nano-degree Program** - Udacity

 **Udacity AI in Finance Nano-degree Program** - Udacity

## Skills

Research • Software Development • Java • Programming • Strategic Planning • Project Management  
• Event Management • Algorithms • Data Structures • Big Data

## Honors & Awards

-  **Certificate of Honour for speaking at @#ATAGTR2017 - @ #ATAGTR2017 #GTR2017**  
Mar 2017  
Certificate of Honour for speaking on developed Performance Tool HikeRunner at @#ATAGTR2017  
<http://agiletestingalliance.org/agileBlogs/atagtr2017-meet-our-speaker-series-harsh-verma/>
  
-  **Certificate of Merit - CBSE BOARD**  
May 2009  
Awarded Certificate of Merit from CBSE Board to be among top 0.1% of Achievers.
  
-  **Certificate of Appreciation for being Firefox Student Ambassador - Mozilla Firefox**  
Mar 2014  
Certificate of appreciation for being Firefox Student Ambassador, To bridge the gap between campus and Mozilla firefox organization.
  
-  **Certificate of Appreciation - Dehradun Institute of Technology**  
Feb 2014  
Awarded Certificate of Appreciation for Designing and Developing College Technical club website for year 2014
  
-  **Certificate of Merit (Dean Academics) - Uttarakhand Technical University**  
Jul 2016  
Awarded Certificate of merit for securing 3rd Rank in Uttarakhand Technical university B.Tech(Hons) CSE program(2011-2015)
  
-  **Honored to Interview with Life Page India to share experiences and talk about software development process - Life Page**  
Jul 2018  
LifePage is a Career selection Organization featuring 1,028 Career Talks from real professionals. Invited to Interviewed with Life Page India to present my views, upcoming plans, experience, challenges, software development process and career aspects for upcoming students.  
<http://www.lifepage.in/>
  
-  **Selected to present research work on drone tech and real time deep learning system at Open Data Science Conference(ODSC) Boston - Open Data Science Conference**  
Mar 2020  
Selected to present the published research work on Secure Real-Time Heterogeneous IoT Data Management System vision paper at Open Data Science Conference ODSC(<https://odsc.com/>)



## **Awarded Certificate of Appreciation for mentoring in Hackmakers**

### **#DigitalDefence 2020 - Hackmakers**

Dec 2020

The #Digitaldefence Hack is a bi-annual global hackathon centred around the application of best-practice cyber security and data science processes to address global challenges. The certificate of appreciation earner completed the stages of introductions, matching with relevant teams, and interacting with other mentors and lead mentors for the #DigitalDefence Global hackathon challenge.

Verified Link : [https://au.badgr.com/public/assertions/wvReoDSRTjCJsBqI9A4LMg?identity\\_\\_email=harshverma59@gmail.com](https://au.badgr.com/public/assertions/wvReoDSRTjCJsBqI9A4LMg?identity__email=harshverma59@gmail.com)