Contact

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www.linkedin.com/in/umang-sharma-datascience (LinkedIn)
umangsharma.in (Personal)

Top Skills

Machine Learning
Research
Algorithms

Languages

English
Hindi

Certifications

Neural Networks and Deep Learning
Intro to TensorFlow

Honors-Awards

ACE Award (Accenture Celebrates Excellence)

Umang Sharma

Data Scientist at Deloitte | Author of an Upcoming Deep Learning Book | Tech Speaker| Open Source Contributor
New Delhi

Summary

Umang is a Data Scientist/Deep learning Engineer with love for Deep Learning and Maths Behind Deep Learning. He is well versed with Probability,Statistics and Calculus.
He is skilled in all aspects of data science from gathering the problem to Deep learning to deploying models in production.

He has worked on a number of problems in Computer Vision, Generative Modeling, NLP, Time Series, Text classification, Predictive modelling, Conversational AI platforms, Image classification and lightweight ML web-app and worked with all types of Deep learning architectures in CNN, RNN, GANs and so on.

He is the author of a book on Deep Learning with TensorFlow (Not Python).
He is highly skilled in TensorFlow, Mxnet and other Deep learning frameworks also in GPU computing and HPC and distributed computing.

He has a keen interest in application architectures and loves to design and develop end-to-end solutions using multiple cloud services like Google Cloud, AWS,Azure
Umang in also skilled in multiple related components of Data Science from Data exploration, PySpark and Visualizations.
In his free time he contributes to open source, speak at Tech conferences,Tech events.
He was an official Speaker of Google DevFest 2018 and Google Machine Learning crash course Pune 2018 and keynote speaker at multiple Deep learning conferences.
For detailed list of the talks he has given so far please visit : http://umangsharma.in/talks.html
He also got featured in Google's machine learning crash course magazine multiple times.
VIEWS ARE MY OWN

Experience

Deloitte
Data Scientist/Deep Learning Engineer
April 2019 - Present (1 year 5 months)
Gurgaon, India

The role requires both being a hands on Deep learning Data scientist as well lead a team of Data scientists, some projects I have done so far
1.Image Anomaly detection using Generative Models
2.Person Pose Estimation on Live video feed using Deep learning
3.Time-series forecasting using a combination of Deep learning and statistical algorithms.
4.Automatic video captioning using novel architectures in Deep learning
5.Image domain adaptation using Deep learning
6.Distributed ML training using optimised distributed training algorithms over cluster of GPUs, CUDA,CUDNN and other parallel computing frameworks
7.Entity recognition using NLP Deep learning architectures.
8.End to End design of Cloud AI Application architectures using Multiple Cloud Platforms.
9.High volume data science applications involving use of distributed computing such as PySpark.

Preprint
Author
April 2019 - Present (1 year 5 months)
India

Authoring of a book on Deep Learning with TensorFlow (Not in Python!) . The book intends to teach state of the art latest Deep learning models/algorithms along with end to end Deep learning Application Development, tries to explain the calculus, probability behind the model architectures as simply as possible. The book covers CNNs, RNNs, Generative modelling, reinforcement learning and much more!
Currently in Pre-Print

Various Different Technologies

Open Source Contributions/Personal Projects/Kaggle DataScience Competitions/Tech Speaker

October 2017 - Present (2 years 11 months)

Pune Area, India

• Recent Open Source Contributions:

TensorFlow JS IntelliJ Plugin:

Created TensorFlow JS plugin for IntelliJ and other JetBrains IDEs ,wrote lexer,parser,code Completion and AST logic for it from scratch for it in Java ,implemented Factory Design Pattern and few more design patterns.

Google Datalab (A data science integrated offering by Google):

1.Made major changes in the Dockerfile of Google Datalab,which enabled IDE like features(Code Highlighting ,instance highlighting) to the Application's Jupyter notebook front-end

2.Made major changes in their python based CLI (command line interface) tools - which enabled users to see a message on application in case of issues/ errors.

3.Packaged Python packages to the Docker image of the application to enable autocompletion features in the application

• Algorithmic and Data Structure Solutions

I open sourced my solutions to classic algorithmic problems on github(Fractional Knapsack,DP Change problem and lot more) and also implementation of classic Data structures (Binary Search trees,heaps,LinkedLists HashMap etc)

• I maintain and developed a website about me umangsharma.in.Used a number of technologies from HTML,CSS ,JavaScript ,PHP ,Bootstrap and so on

•Tech Speaker of Various national level tech events and conferences recently I have spoken at :Google DevFest 2017,Google Machine learning crash course 2017 Pune , TensorFlow Machine learning study jam

• I participate in Kaggle DataScience Competitions.

In my last kaggle competition I was in world top 25%

Accenture Digital Analytics

Associate- Machine Learning and Applications Development

March 2017 - March 2019 (2 years 1 month)

Pune Area, India

I am part of the Accenture Digital's Internal Product Development Team which is building Data Science and Analytics applications in Insurance domain .My responsibilities include the initial research, selecting/developing the right machine algorithm, developing Full stack (both UI/UX and back end)of the ML application and also doing the Big data computations. So far I have:

- Built Regression Trees,Ridge regression(and few more ML algorithms) based Predictive analytics applications from scratch using Big Data,Java,Python,BackboneJS,HighCharts JS, UnderscoreJS and PySpark, enabling clients to see both predicitive and descriptive analytics .
- Built Naive Bayes algorithm based chatbots using DJango Framework and JS to enable easy interaction with users and enabling them see social media sentiment analysis too.
-Built NLP based Sentimental analysis applications using multiple NLP techniques, Python and Data pulling APIs to classify tweets of a particular twitter handle as positive,negative or neutral.
- Have written Python Scripts to automate the Data Pre processing and Analysis of 5 billion rows of data ,which was 20% faster than previous method.
- Developed automated flows of data science from fetching to cleaning to dumping on BigData to analysis of large amount of data using batching algorithms
- Integrated 3rd Party Data visualization tools to our Analytics ML Applications so as to provide better analytics and descriptions to the users.
- Prepared codes in multiple languages so as to automate a lot of Big data operations in our Big Data Environment which decrease reading operation time by 40%.
- Have written bash scripts to automate the data fetching from multiple sources for fast data collections increasing speed of data collection by 50%

Peepin App , Contextual Experiences Pvt Ltd

Solution Design Engineer

September 2016 - February 2017 (6 months)

Gurgaon, India

My responsibilities in this tech startup were:

- Creating a neural network based Computer vision system, which could classify crowd state from a video feed as crowded, empty and mildly crowded in C++ and Python .

- Created a face detector application, which could take feed from low quality cameras and could recognize people in it and their facial features in real time in C++.
- Responsible for creating the whole data warehouse and data mining and analytics system for the company, which included data from IOS, Android app, server, CRM and website
- Created an IoT system to connect 100s of IoT devices together using Linux Docker containers in a highly secure way, making the management , maintenance and deploying codes on the devices easier ,fast and reliable
- Created a neural net system to identify and increase/decrease brightness of video in real time

CERN CMS Physics Center ,University of Delhi
Summer Undergraduate Researcher
June 2015 - September 2015 (4 months)
New Delhi Area, India

Worked on the Higgs boson Decay Channel H->ZZ->4l.
Simulating the Proton Proton collisions of the Large Hadron Collider (LHC) at the centre of mass energy 14 TeV using the event generator Pythia and analysing the data generated through CERN's data analysis framework ROOT.

Also considering and generating various major reducible and irreducible backgrounds in the channel for my analysis (ZZ* ,ttbar etc).
Wrote the code right from the scratch in the language C++ .

Background process generations are used for analysing and removing the similar processes which are replicating the Higgs Decay Channel .

Satisfactory results came in the project .

Inter University Center for Astronomy and Astrophysics
Summer Research Fellow,Indian Academy of Sciences
June 2014 - August 2014 (3 months)
Pune Area, India

Worked on a research project involving High Energy Astrophysics,Scientific Computing and Simulations.The project title was "Monte Carlo Simulation of radiative transfer through magnetic plasma".
I used different scientific computing tools such as GNU plot,Mathematica etc and wrote code for simulation right from the scratch in the language C++

I also did theoretical astrophysics while collaborating with some scientists there as a part of my project.
Apart from my project work I also helped a number of Graduate Students with their research problems.

Education

Guru Gobind Singh Indraprastha University

Bachelor of Technology (BTech), Information Technology · (2012 - 2016)

Heera public school

· (1997 - 2012)

University of Allahabad

Junior Diploma, Music Theory and Composition · (2007 - 2009)