

Ayush Aggarwal

Website: <https://www.ayushaggarwal.in/> (20K+ Views)

Blog: <https://ayushaggar.wordpress.com> (25K+ Views), GitHub: <https://github.com/ayushaggar>

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EDUCATIONAL QUALIFICATIONS

Year	Degree	Institute / School	CPI/%
2016	Dual Degree - M. Tech. (Geo-informatics) + B. Tech. (Civil)	IIT Kanpur	PG – 7.8/10.0 UG – 6.9/10.0
2011	Class XII (CBSE)	Delhi Public School Meerut	91%
2009	Class X (CBSE)	Delhi Public School Meerut	91%

WORK EXPERIENCE

<i>Company – Qyuki Digital Media, Mumbai</i>	<i>Role – Senior Machine Learning Engineer</i>	<i>Nov 2019 – Going</i>
<ul style="list-style-type: none">Application development and scalable architecture setup for Business Automation having multimedia data ingestion, discovery, processing and distribution workflowsYouTube, Facebook and Instagram content analysis to identify patterns supporting multiple business decisions - Engagement, Topic Modeling, Sentiment Analysis, Brand AffinityE-commerce artist-focused data network modeling for engaging userMaintained metrics, recommendation and delivery dashboards through Kibana and TableauLeading end to end analytics solutions to translate unstructured data for ML insights using order, shipping, advertisement and consumer data for cross functional teams - marketing, operations, sales, etc.WhatsApp Bot for Shopify stores having user conversation in English, Hindi and Hinglish using Dialog Flow, Twilio, MongoDBSupport in analyzing and forecasting demand, optimizing unit economics, geographic/territory targeting and tracking content consumption and finding new digital media trendsUsed -<ul style="list-style-type: none">Python, Flask, Golang, MongoDB, Elasticsearch, Kibana, Tableau, Google Cloud, Docker, Asana, Confluence, JiraData Science - Pandas, PySpark, Scikit, Keras, Big Query, SpacyData Streams (API) – YouTube Analytics and Data API, Facebook Graph Insights API, Shopify API, Shiprocket API, Zoom Webhook and API, Google Analytics, Facebook Marketing API		

<i>Company – Self</i>	<i>Role – Freelance Consultant</i>	<i>Jun 2017 – Going</i>
<ul style="list-style-type: none">I am an Online Coach and Consultant specialized in Geoinformatics, Data Science and Development for Students<ul style="list-style-type: none">Consulted around 100+ Students and Parents [Website - 20K+ Views, Blog - 27K+ Views]Volunteer -<ul style="list-style-type: none">Design and publish web pages in compliance with NGO - WhoAmI NGOSurvey Collection and Spatial Web Visualisation setup using Kobocollect, Geonode, Azure CloudMachine Learning and Geospatial projects -<ul style="list-style-type: none">Walmart Store Sales Forecasting - Flask, Keras (Tensorflow), Sequential Model, LSTM [Time Series]E-Commerce Object Detection - Tensorflow Serving, Flask, Docker, R-CNN Model [Computer Vision]Fraud Transaction Detection - Docker, PostgreSQL, Flask, Scikit, Random Forest Model [Finance]Spatial Urban Area Analysis - Open Street Map, GDAL, Flask, Osmnx, Geopandas, Scikit, DBSCAN Model [Spatial]Topic Identification - Twitter API, NLTK, Pandas, Scikit, LDA Model [NLP]Customer Transaction Prediction - Numpy, Pandas, Scikit, Random Forest Model [Finance]Spell Correction Application - Flask, Numpy, Pandas, Custom Model [NLP]Twitter Post Virality Rank - Twitter API, Pandas, Scikit Fuzzy Model [NLP]		

<i>Company – Prismberry Technologies, Noida</i>	<i>Role – Senior Data Scientist</i>	<i>Jan 2019 – Oct 2019</i>
<ul style="list-style-type: none">Implemented Real time IOT Data Ingestion using Azure Cloud, Flask, KairosDB, Cassandra, kafka, DockerVisualizing IOT, Spatial and log metrics using Grafana, React, H3 Uber's Spatial Index, Geoserver, QGISReduction in virtual machine footprint more than 40 % by disk usage optimization and implementing microservicesBuilt prediction model for identifying SKUs at risk, for cross-sell and up-sell in retail store leading to annual benefitLeading team on data science and engineering application working on performing data mining from multiple data sources including Extract, Transform, Load (ETL) and ML automation for analysis using Airflow, Google Cloud, Pandas, PySpark, Big Query, Selenium, Scikit, Keras		

- Hands-on experience from scratch to build machine learning model using **deep learning concepts, architecture setup** in the **big data context** (100+ GB) and **deriving business insights** using tableau dashboard, **A/B test requirements** and metrics

Company – Sky Map Global, Hyderabad / Singapore | Role – Senior Research and Technology Engineer | July 2017 – Oct 2018

- Implemented **sentimental analysis** of client emails using Word2Vec, Scikit, **Keras (LSTM)** and Google Cloud ML Engine
 - Deployed **visualization** of analysed IOT dataset using **D3 chart, Google Map**, Vue.js, Flask, **POSTGIS** and PostgreSQL
 - Created model using Python, **Keras (CNN)**, Planet API and **Google Earth Engine** for **Augmented Reality** IOS Application and was featured in **Geospatial World Forum 2018**
 - Analysed **vehicle routing problem** (carpooling) using optimisation tool, Google Map API, and python (**Singapore Project**)
- Conducted **technical training sessions**, supervised interns, hiring and **collaborated** with 3 teams for development of products
Completed **specialization courses** on **Google Map API** and **Data Engineering on Google Cloud Platform** [\[Certificate\]](#)

Company – Practo Technologies, Bangalore | Role – Software Engineer | Sept 2016 – Jun 2017

- Developed API in **Ray V7 Product** to improve its query optimisation using SQL to reduce **processing time**
- Created **online portal** for **calculating Doctor's Churn** of Ray product for analyst team using MySQL and Periscope Data
- Deployed app to track travelled places end to end on **AWS** [\[GitHub\]](#)

Used - Laravel, PHP, Doctrine, MySQL, NG Map, Amazon EC2, Git, New Relic, MVC pattern

TECHNICAL SKILLS

Programming	Proficient - Python, JavaScript, SQL, Git Intermediate - Golang, PHP
Product Development	Proficient - Flask, POSTGIS, PostgreSQL, MySQL, MongoDB, KairosDB, Cassandra Intermediate - Express, Laravel, Geoserver, Arkit, Web GL (Cesium), Selenium
Machine Learning	Proficient - NLP, Classification, Regression, Feature Engineering, Data Scraping, Clustering
Data Engineering	Proficient – Docker, Google Cloud, Big Query Intermediate – Airflow, Kafka, Azure Cloud
Data Science	Proficient - Pandas, Scikit, D3 chart, Tableau Intermediate - Keras (CNN and LSTM), Tensorflow
Geospatial Technologies	Proficient - Google Map API, Planet API, Google Earth Engine, Mapbox, QGIS, GPS, ArcGIS, OSM

RELEVANT COURSES DONE

Financial Engineering	Probability and Statistics	Social Media Analytics	Partial Differential Equations	Economics
Machine Processing of Remotely Sensed Data	Geospatial Data Processing	Systems Analysis	Linear Algebra	

ACADEMICS RESEARCH PROJECTS

Spatial prediction for landslides using machine learning models (M.Tech. Thesis) | Aug 2015 – July 2016

- Study the **machine learning techniques** in Python for **spatial prediction** of event useful for hazard, crime, and marketing
- Investigations revealed that factors affecting **landslide risk** prediction are slope, distance from road, river and other landslides

Network Analysis of Research Community | Mar 2015 - Apr 2015

- Utilized **professor's web pages** and **research papers** to help build a **multidisciplinary culture** of research in different fields
- Applied **network queries** and **social media analytics** concepts in **Python** for noise generation, file cleaning and data comparison

RELEVANT CERTIFIED COURSES (Coursera)

Geospatial Intelligence, GPS to Spatial Computing, Image and video processing and Maps and Geospatial revolution

INTERNSHIP EXPERIENCE

University - Leibniz University Hannover, Germany | Project - Kinect v2 Map Visualization [\[GitHub\]](#) | May 2015 - Jul 2015

Company - Transerve Technologies, Goa | Project - SmartMU (GIS technology) [\[Application\]](#) | May 2014 - Jul 2014

Company - OYO Rooms / Oravel, Delhi | Project - Graphic and Web Design | May 2013 - Jul 2013

SCHOLASTIC ACHIEVEMENTS

- Secured **2nd position** among 10 teams in **Google Developer Hackathon**, Goa for analysis of **real-time data** on social sites in 2014
- Attained All India Rank (AIR) **1919** in **IIT-JEE** (percentile 99.6) and **685** rank among **85000** students in **IIST** in 2011
- Recipient of prestigious **KVPY scholarship**, awarded to top 125 young scientists & leaders across country by DST in 2010
- Awarded certificates of merit for **outstanding performance** in academics in 8th, 9th and 10th class
- Presented **two games** under guidance of teacher in **Visual Studio** in 8th standard.