

Ayush Aggarwal

Website: <https://www.ayushaggarwal.in/> (22K+ Views)

Blog: <https://ayushaggar.wordpress.com> (28K+ 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

Company - Qyuki Digital Media, Mumbai	Role - Senior Machine Learning Engineer	Nov 2019 - Going
<ul style="list-style-type: none">Leading end to end analytics solutions to translate structured and unstructured data for ML insights using order, shipping, advertisement and consumer data for cross functional teams - marketing, operations and salesArchitecting and building complex business solutions that help internal stakeholders with talent assessment, brand affinity, identify patterns, development for strategy setting and decision makingDevelop models to gain deep insights into consumer behavior and prescribe actions to improve artist-focused content personalization, consumer engagement and e-commerce products monetizationSupport exploration of new technologies, digital media trends and experimental methods to identify growth opportunitiesBusiness Automation using multimedia data ingestion, discovery, processing, network modeling and delivery dashboardsWhatsApp Bot for Shopify stores having user conversation in English, Hindi and HinglishAnalyzing and forecasting demand, optimizing unit economics, geographic/territory targeting and tracking consumptionApplied network queries and social media analytics concepts for noise generation, file cleaning and data comparisonAgile based product development for machine learning oriented applications focusing on team deliverablesUsed - Python, Flask, Google Cloud, Docker, Confluence, Jira, Twilio<ul style="list-style-type: none">Data Streams (API): YouTube, Facebook Graph, Shopify, Shiprocket, Zoom, Google AnalyticsDatabases: MongoDB, Big Query, Elasticsearch Data Science: Pandas, PySpark, Scikit, Keras, Tableau, Dialog Flow,Research keywords: NLP, Object Detection, Time Series Analysis, Topic Modeling, Sentiment Analysis, TF-IDF		

Company - Prismberry Technologies, Noida	Role - Senior Data Scientist	Jan 2019 - Oct 2019
<ul style="list-style-type: none">Defining Cloud and DevOps roadmap to manage service for IOT data ingestion of about 300+GB with 99.5 % uptimeReduction in Infrastructure cost and virtual machine footprint by 34% after implementing microservices and improved latency and throughput using auto scale ingestionImproved experience by calculating metric of different pipelines keeping ingestion and data access API separatelyMaintaining Log monitoring, load testing, alerting and playback system of data ingestionResolved operational issues concerning Dataops infrastructure - databases, data pipelines, data warehouses and storageLeading team on data science and engineering application building ETL and ML automation platform that drives businessBuilt prediction model for identifying SKUs at risk, for cross-sell and up-sell in retail store leading to annual benefitHands-on experience from scratch to build machine learning model and deriving business insights using tableau dashboard, A/B test requirements and metricsUsed - Python, Flask, Azure and Google Cloud, H3 Uber's Spatial Index, Selenium<ul style="list-style-type: none">Data Engineering: Kafka, Jenkins, IOT Hub, Locust, Docker, Image Registry, Kubernetes, Airflow, GeoserverDatabases: Cassandra, Kairos DB, Azure SQL, Big Query Data Science: Pandas, Scikit, Keras, PySpark, TableauResearch keywords: Regression, Time series analysis, Clustering		

Company - Self	Role - Freelance Consultant	Jun 2017 - Going
<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 - 22K+ Views, Blog - 28K+ Views]Volunteer - Design and publish web pages in compliance with WhoAmI NGOSurvey Collection and Spatial Web Visualisation in 6 languages using GIS, Kobocollect, GeonodeGoogle Cloud Certified - Google Map API and Data Engineering on Google Cloud Platform [Certificate]Coursera Certified - Geospatial Intelligence, GPS to Spatial Computing, Image and Video Processing, Maps RevolutionMachine Learning and Geospatial projects -<ul style="list-style-type: none">Walmart Store Sales Forecasting - Keras, Sequential Model, LSTM [Time Series]		

- [E-Commerce Object Detection](#) - Tensorflow Serving, Flask, Docker, R-CNN Model **[Computer Vision]**
- [Fraud Transaction Detection](#) | [Spell Correction Application](#) | [Twitter Post Virality Rank](#) **[Fuzzy Model]**
- [Customer Transaction Prediction](#) | [Topic Identification](#) - LDA Model **[NLP]** | [Spatial Urban Area Analysis](#) - DBSCAN Model

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

- Implemented **sentimental analysis** of client emails using Spacy, Word2Vec, Scikit, **Keras (LSTM)** and Google Cloud ML Engine
- Deployed **visualization** of analysed datasets using **D3 chart**, Kepler.gl, **Google Map**, Vue.js, Flask, **PostGIS** and PostgreSQL
- Created model using Python, **Keras (CNN)**, Planet API for **Augmented Reality** featured in **Geospatial World Forum 2018**
- Analysed **vehicle routing problem** (carpooling) using optimisation tool, Google Map API, and python (**Singapore Project**)
- Conducted **technical trainings**, supervised interns, hiring and **collaborated** with 3 teams for development of products
- Research collaboration with **Academic and Industry** leaders for using **deep learning concepts** and **architecture setup** in the **big data context** (100+ GB)

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, Big Query Intermediate - Express, Laravel, Geoserver, Arkit, Web GL (Cesium), Selenium
Data Engineering	Proficient - Docker, Google and Azure Cloud, Jenkins, Kafka Intermediate - Airflow, Kubernetes
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, GDAL, QGIS, Kepler.gl, ArcGIS, OSM
Machine Learning	Proficient - NLP, Classification, Regression, Feature Engineering, Data Scraping, Clustering

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

INTERNSHIP EXPERIENCE

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

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

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