ANKUR MOHANTY

• 213-448-1193 • ankurmoh@usc.edu • github.com/ankurmoh • linkedin.com/in/ankur-mohanty-327488100

EDUCATION

University of Southern California, Los Angeles, CA , US **June 2019 - May 2021**
Masters of Science in Computer Science (Data Science Specialisation)

- **CGPA** 3.68 / 4.0
- **Relevant Coursework** : Analysis of Algorithms, Artificial Intelligence, Data Mining, Information Retrieval and Web Search Engines, Introduction to Cryptography, Machine Learning for Data Science

Birla Institute of Technology, Mesra, JH, India **July 2012 - June 2016**
Bachelor of Engineering in Information Technology

- **CGPA** 8.75 / 10.0
- **Honors/Awards** : Silver Medalist, 2016 Batch of Information Technology, University Topper (GPA 9.58, 2014)
- **Relevant Coursework** : Data Structures, Design of Algorithms, Database Management Systems, Operating Systems

EXPERIENCE

Trident Ltd. , Madhya Pradesh, India **July 2016 - December 2017**
SAP ABAP Developer/Consultant

- Developed interactive reports in SAP ESS for streamlining inventory management in Trident's Towel and Home Textile Units (Coding in ABAP, Embedded SQL, Mobile Development in SAP Fiori / Java)
- Reduced Turn Around Time for matching non-dispatched Parent cartons with associated child cartons in Yarn Finished Goods Warehouse, from **10 minutes** to **5 seconds,** by creating a user-friendly utility transaction.
- Led a cross functional team of 5 to analyse business mapping from Work Floor to System for Trident's Raw Material Procurement division, and optimised legacy code by incorporating additional functionality, and normalising relations.

Tata Steel, Jamshedpur, JH, India **May 2015 - August 2015**
Vocational IT Intern

- Managed a team of 4 summer trainees to create a Web based application for **Library Management** in ASP.NET, with programming in C#, and Database support in Oracle 11G.
- Features of the application include User login authentication; Profile page showing User's deadlines, late fee accumulated, currently issued books or CDs; SMS notification for each book/CD borrowed or returned, and top books issued.
- Scaled and deployed Library Management in 3 departments of Tata Steel (Tata ITS, Tata Pigments, Tata Chemicals).

PROJECTS

Recommendation Engine **March 2020 - May 2020**

- Designed a Recommendation engine in Python(Hadoop, Pyspark and SparkSQL), to predict User rating for any Business(on a scale of 5), by implementing concepts of User-Based and Item-Based Collaborative Filtering.
- Scaled the engine (by tuning hyper-parameters) to work within ***300s*** on Yelp Training Dataset of size over ***2 GB***.
- Implemented a Hybrid Recommendation model, with Pearson Co-relation, and Feature extraction using XGBoost, and removed Cold Starts, to obtain a Root Mean Squared Error of ***0.989***, and accuracy of ***98.7%***.

Task Manager, Web Application **May 2020 - July 2020**

- Collaborated with a colleague on a Task Manager App, using NodeJS, MongoDB(Mongoose), and Postman.
- Features of the app include New User Registration, User authentication, adding and modifying tasks, image upload, GPS location services using MapBox API, and periodic deadline reminders on User Homepage.
- Incorporated Unit and Integration tests to ensure smooth execution of CRUD operations, and HTTP requests.

Search Engine using Apache Solr + PageRank **September 2020 - November 2020**

- Crawled nytimes.com, and used Apache Tika to parse and load the crawled files into an Apache Solr core.
- Extracted the link structure of the crawled files using Java JSoup, and calculated PageRank using Python's NetworkX.
- Used Map-reduce, and cosine similarity, to create an inverted index for text search, and wrote a PHP web application to compare its results with PageRank; also implemented auto-complete, snippets, and spelling correction for search queries.

SMS Spam Detection **January 2020 - February 2020**

- Liaised with a team of two students on a Jupyter notebook to classify a set of ***5574*** SMS texts into SPAM or HAM, by utilising concepts of Text Mining(TF-IDF, Cosine Similarity), and Natural language Processing.
- Performed data preprocessing, including removal of punctuations and stop words, and converting cleaned data into Count Vectoriser format, followed by implementing Multinomial Naive Bayes Classification (as part of Python's tensorflow.keras API), to achieve overall ***99%*** recall and ***97%*** precision on testing dataset.

Grocery Store, Web Application **August 2019 - October 2019**

- Designed an online store for grocery items, developed with TypeScript, Angular 4, Firebase, and Heroku.
- Coded and optimised functionalities including User authentication through Google Firebase; Home Page showing current catalog of available groceries; Adding and removing items from Cart, and Cart Checkout; and updating Inventory price and/or quantity though an Admin Account.

TECHNICAL SKILLS

- Programming Languages : C++, Java, Python, JavaScript, C#
- Web Development: NodeJS, React, Angular, ASP.NET, HTML/CSS, PHP
- Databases: MySQL, MongoDB, FireBase, PostGIS, PostgreSQL
- Tools/APIs : Sklearn, Tensorflow, Pyspark, XGBoost, GIT, Postman, Jupyter, Google Cloud Platform, AWS, Apache Solr