ADITYA AGARWAL

Email: aagarw14@stevens.edu **Website:** http://www.adityaagarwal.me/
LinkedIn: @adityaagarwal1999 **GitHub:** @adiagarwalrock

EDUCATION

Stevens Institute of Technology
Masters in Machine Learning **Sept 2022- Present**

Alliance University, Bangalore
Bachelors in Computer Science and Engineering GPA- (2.6/4.0) **Aug 2017- Jul 2021**

COURSEWORK: Engineering Mathematics (includes Probability, Statistics, Calculus), Data Mining and Data Warehousing, Scripting Languages, Big Data Analytics

EXPERIENCE

***Back-end Intern*, Quichub Innovations LLP, Bangalore** **Sep 2020 – Nov 2020**
Quichub is a technology company offering consumer health solutions.

- Developed 'MyResQR' - an emergency response platform to use if a certain individual met an accident.
- Programmed an SOS button that sends alerts to the user's emergency contacts; Built services using Python in Django Web Framework.
- Implemented IVR call flows using Exotel API for automated calling and text messaging to automatically connect the victim or the respondent to the emergency contact.

***Research Intern*, National Institute of Technology, Rourkela** **Jun 2019- Jul 2019**
NIT Rourkela is a University of National Importance for technical education in India.

- Learned and worked upon the recommendation algorithms in Python for collaborative filtering over Netflix Movie Database.
- Performed Collaborative filtering algorithm on movie dataset for learning and prediction for user recommendation.

TECHNICAL SKILLS

Operating Systems: Windows, Linux, macOS
Languages: Python 3.x, Core Java
Database and Client/Server Technologies: MySQL, SQLite, MongoDB
Web Applications: HTML5, JavaScript, CSS, Bootstrap
Frameworks: Flask web framework, Django, Django Rest Framework
Others: Regression Analysis, AWS (EC2, RDS, LightSail, S3), Docker, Raspberry Pi

PROJECTS

Sales Rewards Manager (Freelancing) **Apr 2022**

- Created and Deployed a rewards Manager application using Django for Keeping track of sales made by a particular sales representative.
- On a successful transaction of Sale, the salesperson would receive points depending on sale.
- SMS (using AWS SNS Service) will be sent to the salesperson upon every successful transaction.
- The Web-App is hosted on AWS via Elastic Beanstalk.

Project Management and Quality control (Freelancing) **Oct 2021 - Mar 2022**

- Created a Project management application in using Django for an Interior Design Company.
- The aim is to manage ongoing projects along with providing timely updates to the client on the progress.
- Create and send Billing estimates (Estimated cost incur) and create/share site inspection report among the team members.
- The Application is deployed on AWS Elastic Beanstalk with a RDS MySQL database.

Object Classifier from Images **Aug 2021 - Sep 2021**

- Created an Image Classifier to classify Images among 6 classes using TensorFlow 2 framework.
- Programmed a CNN with 24 deep layers with 150,534 Trainable parameters out of 20,174,918 Total parameters.
- Obtained accuracy of 96.3% on the training set and validation accuracy of 59.3%.

Fantastic Computing Machine **Dec 2020 - Jun 2021**

- Created a SaaS Platform on *Python* using *Flask framework* to dynamically deploy Machine Learning Models.
- Teamed with two friends and managed the development of the platform.
- Provide users with a sharable link for the community to interact with the model.
- Implemented version control for the users to manage and maintain the previous models.
- Deployed the platform on AWS EC2 using dockerized Nginx and the platform.

- Using the Google OAuth service, I designed an end-to-end user authentication mechanism and saved the data in a session.
- Created a SQL database to hold user information as well as the projects that each user is assigned to.

Fashion Object Classifier: MNIST Data **Jul 2020**
- Fashioned an image Classifier using 2-layer Deep CNN which can classify a set of images into ten different fashion items (such as shirt, trousers, boots etc.)
- Achieved 94% accuracy on the classification of the given unknown dataset.

Linear Regression Analysis on Diabetes Dataset **Apr 2020**
- For 442 diabetes patients, ten baseline data such as age, sex, body mass index, and so on were obtained to perform a quantitative measure of diabetes development one year from baseline.
- Trained and predicted the presence of diabetes via a linear regression model.
- Successfully predicted the disease progression, one year after baseline.

Sentiment Analysis using Scikit-Learn **Apr 2020**
- Deployed a *logistic regression* estimator from scikit-learn for sentiment analysis of IMDB movie reviews and document classification.
- Classified the movie review as a positive or a negative, using Bayes Theorem and Laplacian Smoothing.

Movie Recommender **Mar 2020**
- Formulated a movie recommender using *Tableau* train Movie-Lens Dataset for the user-item recommendation.
- Capacitated recommender classification of the movies based on genre and year and suggest the movies to the user.

TECHNICAL CERTIFICATIONS/PUBLICATIONS/PAPERS

- Contributed a book chapter entitled "Text Mining Approach Based on TF-IDF and SVM for Text Classification" for the book **Latest Innovation for Future Education**(LIFE-2021) published by ESN Publications, **Jan 2021- ISBN:** 978-81-947019-0-3.
- Introduction to TensorFlow for AI, ML, and Deep Learning- Coursera (deeplearning.ai), **Jun 2020**
- Structuring Machine Learning Projects- Coursera (deeplearning.ai), **May 2020**
- Python Data Structures- Coursera (deeplearning.ai), **May 2020**
- Data Visualization- Coursera (University of Illinois at Urbana-Champaign), May 2020
- Data Warehouse Concepts, Design and Data Integration- Coursera (University of Colorado), May 2020
- Java Programming: Solving Problems with Software- Coursera (Duke University), May 2020
- Neural Networks and Deep Learning- Coursera (deeplearning.ai), **Apr 2020**
- Machine Learning for All- Coursera (University of London), **Apr 2020**
- Software-Defined Storage Concepts, VMWare, **Jan 2020**
- Presented the project," Light Following Solar Panel Assist " at interdisciplinary competition 2018 and secured the 2nd position among 100 participants for the Most Innovative Idea- **Dec 2018**

ACTIVITIES AND AWARDS

- Attended the Workshop APIs for Beginners organized by IEEE Computer's Society, Bangalore, **Jan 2021**
- Attended the Workshop Fundamentals of Image Processing using Python organized by CVM University, Gujarat**, May 2020**
- IEEE Student Member, **Aug 2019 - Jan 2020.**