Amey Bhilegaonkar

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Education

Master of Computer Science — **August 2022 - May 2024**
Arizona State University — *Tempe, Arizona*

Bachelor of Engineering in Electronics and Telecommunications — **June 2015 - July 2019**
Pune Institute of Computer Technology — *Pune, Maharashtra*

Relevant Coursework

- Data Structures and Algorithms
- Object Oriented Programming (OOP)
- Database Management
- Spatial Data Science
- Statistical Machine Learning
- Computer Networks

Technical Skills

GCP Associate Cloud Engineer certified.

Programming Languages: Python, Java, SQL, Unix/Linux Scripting

Cloud Platforms and Databases: GCP, AWS, DBT, MySQL, DynamoDB, Cassandra

Data Science and Engineering: Airflow, ETL, Kafka, Spark, Big data, Data warehousing, Data Analytics, Data Visualisation, NLP, Image Processing, Statistics, Spring boot, Pandas, Numpy, Scipy, sci-kit learn, Tensorflow, Keras, Jupyter Notebook

DevOps/Site Reliability Practices: CICD, Git and Version control, Jenkins, Terraform, Automation, Docker, Kubernetes, code refactoring, Agile, Scrum, S3, Data Lake, GCS, SQS, EC2, ECR, SNS, VPC.

Experience

Associate Software Development Engineer 2 - McDonald's CRDS — **January 2021 - July 2022**
***Publicis Sapient**, Banglore, India*

- Built and Automated large-scale, high-performance, scalable databases, capable of ETL processes using Cassandra and Spark which reduced manual efforts by 60%
- Translated business propositions into quantitative queries and collected and cleaned the necessary data.
- Maintained data pipeline up-time of 99.4% while ingesting streaming and transnational data across 8 different data sources Spark, S3, SQS, Java, Python.
- Automated Resource Provisioning and testing which saved manual efforts of about 40h/month saving costs of about $60K/month to the company.
- **Capabilities**: Java, EC2, ECR, ECS, S3, SNS, VPC, DynamoDB, Scala, Cassandra, DevOps, Terraform, Apache Spark, Data Cleaning, Data Modeling, Data Visualization, Distributed Systems

Associate Software Development Engineer 1 - McDonald's Japan Analytics — **June 2019 - December 2020**
***Publicis Sapient**, Banglore, India*

- Developed an Automated Data Validation Module to verify Data flow, boosting efficiency by 30%
- Created Translation module using google translate API to translate business Data Dashboards into different languages, reducing manual efforts to 10%
- Constructed Data Ingestion pipelines to ETL the 50 TBs of the file data everyday to GCP's BigQuery.
- Enhanced various modules by developing new a modularized code structure resulting in increased efficiency by 25%.
- Coordinated with Data scientists for data cleaning and variables selection
- **Capabilities**: Python, DBT, Airflow, Kubernetes, GCP, BigQuery, DataFlow, Cloud Storage, AI platform, Data Collection, Data Validation, Data Cleaning, Data Integration

Projects

Jobs made Easy | *Python, Django, SQL, HTML, CSS, DevOps, AWS, Git* — **January 2022**

- Currently, Developing an end-to-end full stack scalable **Client-Server API-based web application**, to help Colleges and Students automate Training and Placements tasks and to better manage the resources using our platform.
- Implemented services for Authentication, and a scalable database design. Collaborated to create front-end services using Python Django.
- Used Cron to schedule the deployments using Jenkins and GitHub resulting in 0 manual intervention for deployments

Image Captioning using Deep Learning | *Python, Tensorflow, Keras, Numpy, Scipy, PyTorch, AWS* — **September 2022**

- Currently developing a Computer Vision and Natural Language Processing based Mathematical ML Algorithm, to detect objects from Image and construct the caption of the Image
- creating a module for success verification that uses indicators like BLEU, CIDEr, SPICE, to assess the success rate.
- Creating a graph plotting module to better comprehend data distribution and the relationship between accuracy and errors.

Emotion Detection using Machine learning | *Python, PyTorch, Scikitlearn, Librosa, Jupyter, Collab* — **February 2020**

- Implemented Emotion detection using two different types of Data with existing Machine Learning models.
- Adapted and Explored different parameters and concepts like Over-fitting, Under-fitting, Bias, Variance, Accuracy, F1-scores, Regularization, Bagging and Boosting, Neural Networks, LSTM
- **Using Image Data:** Enhanced CNN model to detect Emotions from Images and used transfer learning to detect more emotions by training the model again on the newer data set.
- **Using Speech Data:** Boosted the accuracy of the existing speech emotion recognition model by 13% by training it over-filtered and modified the features of the data.