

Ajinkya Sakhare

Career Objective

High achieving MSc Computer Science (Artificial Intelligence) at NUI Galway with a proven ability to work effectively in production systems. Worked actively with senior leadership for excellent business collaboration and profitability. 3+ years of IT experience and proficient in Python, Machine learning, Artificial Intelligence, Computer vision

Education

2019-2020 **Masters of Science**, [Computer Science(Artificial Intelligence)], National University of Ireland, Galway.
Expected Grade: 1.1

Modules: Machine Learning, NLP, Reinforcement Learning, Data Visualization, Computer Vision Pipeline, etc.

2012–2016 **Bachelors of Technology**, [Computer Science and Engineering], K. Es Rajarambapu Institute of Technology, Sangli. Final Grade- 7.85

Work Experience

July 2016– **System Engineer: Tata Consultancy Services Ltd.**

August 2019 **Client: Morgan Stanley Inc. October 2018– August 2019**

- Founded center of excellence team for Informatica Intelligence Cloud Services (IICS) and Informatica Big Data Management(BDM).
- Produced visualization dashboards using PowerBI.
- Engineered MySQL cube and OLAP reporting on IICS.
- Pioneered the testing methodologies to test new features of IICS and Informatica BDM.
- Automated monitoring and repeated activity such as refresh, maintenance using shell script, Powershell and Python.
- Streamlined production readiness and Bench-marking for BDM With Hadoop, Hive, Spark and Yarn.
- Developed and optimized Hive queries and jobs for heavy transnational data.
- Maintained IICS and BDM Agents on Windows and Linux environment.
- Analyzed and mining activities from large transactional unstructured data in Hadoop data lake.

Client: Microsoft Inc. July 2016– October 2018

- Charted and maintained fully automated CI/CD pipelines for code deployment using VSTS Deploy and PowerShell.
- Managed, refined, and oversaw cloud infrastructure on Azure, including backups, patches, and scaling.
- Consolidated underutilized servers and other infrastructure and reduced costs (~\$30,000/-).
- Automated build and deployment using Azure DevOps to reduce human error and speed up production processes and PowerBI reporting for visualization.
- Worked with geographically distributed senior leadership level stakeholders.

Academic Projects

April 2020 – **Optimizing Neural Networks with evolutionary algorithms** (Presently working)

- o Performance of Feedforward neural networks depends upon the weights and NN architecture. Optimizing deep neural networks is a complex problem and gradient-based or constructive heuristics will not be able to optimize these. In my MSc research thesis project working on genetic algorithms.
- o Distributed Evolutionary Algorithms in Python (DEAP) and other python modules like NumPy, pandas, etc.

April 2020 – **Reinforcement learning agent for deterministic problem**

- o Using Python, created a 5x5 grid sized FrozenLake environment along with the necessary methods.

- Implemented Q-learning on the FrozenLake problem to learn a policy which can navigate optimally through the lake.
- Ran the frozen lake experiment for episodes and output the action value estimates at the end of the learning process.
- Applied DQN on a similar problem using Keras to eliminate the value iteration and Q table.

April 2020 – **A Deep Learning Computer Vision Pipeline for Object Detection and Classification**

- Developed state-of-the-art computer vision pipeline to identify events over incoming video streams using deep learning techniques for object recognition and video analytics.
- The task was to detect object events (car) with specific attributes (car type and car colour).
- Instituted object detector model (TinyYolo) to detect a car in the video.
- Train an existing pre-trained object classifier i.e. Mobilenet from Keras to detect car type example Sedan or hatchback.
- Created an attribute classifier for colour detection of the car using OpenCV.
- Pipeline designed using python along with multiprocessing and queue module for parallel event processing.

August 2015 – **Intranet traffic analysis using Hadoop**

May 2016

- Prototyped Intranet traffic data analyzer to avoid unethical use of the Internet provided by Institute.
- Implemented Hadoop data pipeline to identify network usage over the college private network.
- Developed MapReduce jobs in Python for log analysis, visualization and data cleaning.
- Performed big data processing using Hadoop, MapReduce, etc. and Imported data from MySQL to HDFS, using Sqoop to load data.
- Formalized 3-node Hadoop cluster for using commodity hardware available.
- Created visualizations and reports for the business team, using Python ggplot library.
- Outperformed in project work and aced with AA grade.

Skills

- Scikit-learn, TensorFlow, Python(Pandas/NumPy)
- Shell Script, PowerShell and Java
- PowerBI, Data Visualization with R and Python (ggplot/matplotlib, seaborn)
- Hadoop MapReduce, HDFS, Hive
- Excellent communication skill and good at writing technical documents for SOP.

Certifications

- IBM: Big Data Foundations - Level 1
- DevOps Foundation Certificate
- Microsoft 70-533: Implementing Microsoft Azure Infrastructure Solutions
- ITIL V3 foundation

Extra-Curricular

- Awarded as an “Employee of the Quarter Q1-2018” for cost-effective implementation of service improvements to reduce the overhead cost for the client.
- A class representative for MSc AI 2019 in National University of Ireland, Galway.
- Volunteered for ACCESS department of NUI, Galway open day 2019.

Referee

- Dr James MacDermott [Lecturer in Computer Science at National University of Ireland, Galway]
Email: james.mcdermott@nuigalway.ie
- Mrs Smita Mahapatra [Technical Lead (Senior Manager) at Morgan Stanley]
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