

# Manan Buddhadev

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## Summary

Software Engineer with 4.5 years of industry experience with expertise in **Software Development, Data Engineering and Data Science**

## Skills

- **Programming/Scripting Languages:** Java, Python, C#, R, Scala
- **Databases/Query Engines:** SQL, Azure Data Explorer (Kusto), DynamoDB, MySQL, Apache Spark
- **Data Science Tools:** Pandas, NumPy, Scikit-learn, NLTK, Keras, TensorFlow
- **Visualization Tools:** Python (Plotly), PowerBI, ggplot2
- **Cloud Tools:** Microsoft Azure

## Work Experience

### Microsoft

Jan 2019 – Present

#### Software Engineer 2 – Azure Compute

- Working on creating local development environments for better concurrent development on CosmosDB and Azure Data Explorer.
- Leading an effort on figuring out where we can minimize cost of storage and processing data across Azure.
- Implemented CI/CD pipelines to deploy our service and website using ARM templates.
- Designed an architecture for a data catalog across all of Azure to help make data sharing easier.
- Created data movement pipelines to move terabytes of data without affecting the health of the databases.
- Implemented APIs to create and delete Azure Data Explorer databases.
- Guided new hires with their onboarding process and knowledge transfer.
- **Technological Stack:** C#, ASP.NET, REST, Swagger, Azure Data Factories, Azure Data Explorer, MVC, CosmosDB, Azure DevOps, Git, ARM

#### Software Engineer – Microsoft Managed Desktop

- Engineered a solution to migrate the team's Big Data platform to Apache Spark to achieve higher compliance.
- Created data pipelines using Azure to ingest data from various sources and develop data visualizations for the leadership team.
- Reduced manual effort by 85% by designing a console application that pulls in and analyzes data computation usage for the team.
- Worked on GDPR compliance to hash & encrypt all the datasets with end user identifiable information.
- Led a worldwide migration, without data loss or service outage of the data stores from one source to another source.
- Built an anomaly detection system to identify failing data pipelines and raise alerts.
- Developed a natural language processing model to identify trends in customer tickets and co-relate with service incidents.
- Mentored interns on system design, writing clean code, and engineering extensible & scalable solutions.
- **Technological Stack:** C#, SQL, T-SQL, KQL, AzureML, Azure Data Factories, Azure Data Explorer, Python, Scala, Spark

### SAP

Oct 2018 – Jan 2019

#### Software Developer – Conversational AI

- Created a tool to visualize the logs from the conversations and come up with a better way to interpret them.
- Optimized the bot to pick up utterances better to minimize false positives.
- **Technological Stack:** Java, Python, Flask, HANA/S4, NLP, Git

### Amazon

Aug 2017 – Dec 2017

#### Software Development Engineer Intern

- Developed a bot for the team that generates heuristics from a trouble ticket to reduce the operational churn.
- Applied pattern matching and machine learning techniques to extract data from the ticket which reduced the manual work by 11%.
- Single-handedly drove the project from designing the system architecture to development, along with testing.
- **Technological Stack:** Java, DynamoDB, AWS, Git

### Conduent

May 2017 – Aug 2017

#### Process Automation and Optimization Scientist Intern

- Created data dictionaries for multiple complex datasets, having more than 50 attributes.
- Performed data cleaning operations including normalization, outlier detection, and anomaly detection.
- Generated visualizations and reports for the business processes within the company to assist in better understanding the data.
- Developed an algorithm to determine the productivity of the operators based on their activity retrieved from the data.
- **Technological Stack:** R, SQL Server, R Shiny Server

## Education

Master of Science (M.S.) in Computer Science

Rochester Institute of Technology

Aug 2018

Bachelor of Engineering (B.E.) in Information Technology

University of Mumbai

May 2014

## Publications

**Quantifying the Costs of Data Breaches:** International Conference on Critical Infrastructure Protection, [Critical Infrastructure Protection XIII](#), pp 3-16