

# Basil Sajid Shaikh

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Github: [github.com/thebigshaikh](https://github.com/thebigshaikh)

Portfolio: [thebigshaikh.github.io/](https://thebigshaikh.github.io/)

## EDUCATION

### Master of Science in Computer Science

San Diego State University, California

August 2021 - May 2023

GPA: 3.92/4.00

### Bachelor of Engineering in Computer Engineering

University of Pune, India

July 2013 - July 2017

GPA: 3.87/4.00

## SKILLS

Programming Languages	Python, Java, JavaScript, Bash Shell Scripting
Web Development	Angular, JQuery, Node.js, REST API, HTML, CSS, Bootstrap, Flask, Dash
Database	Oracle, SQLServer, PostgreSQL, MongoDB, DynamoDB, Amazon RDS, Amazon Redshift
Data Science & Big Data	Spark, Pyspark, Sci-Kit Learn, Kafka, Hadoop, Hive, Pandas, Numpy, Tableau, Spotfire
Cloud & Other Technologies	AWS S3, AWS EC2, AWS Athena, AWS Lambda, AWS Glue, AWS EMR, AWS Sagemaker, TIBCO BW5

## PROFESSIONAL EXPERIENCE

### AMAZON - (Amazon.com Services LLC)

Seattle, Washington

#### Software Development Engineer Intern – Detection System Engineering

May 2022- August 2022

- Optimized the performance of a root cause analysis application by re-architecting the whole app, transitioning from a monolithic architecture to a purely cloud-based microservices architecture.
- Improved the data scalability by 140% (from 1 GB to 14 GB) and user scalability by 500% (from 10 to at least 50 users).
- Built REST based serverless microservices using AWS Lambda, AWS EFS, Python and DynamoDB.
- Used AWS Athena to read CSV data files dumped into AWS S3 and wrote SQL queries to extract and transform this data.
- Designed and configured all AWS services and infrastructure such that it can dynamically scale to increasing data and user load.
- Developed a native AWS(NAWS) CDK pipeline with guard rails to automate continuous development and integration.
- Redesigned and enhanced the UI/UX by implementing user-input validation and error handling through Dash callbacks.

### TIBCO SOFTWARE

Pune, India

#### Senior Associate Consultant

October 2017 – August 2021

- Developed and maintained a cloud-based financial transaction application using Java and Cassandra as the database querying language.
- Involved in the entire Software Development Life Cycle (SDLC), including designing the application's architecture using Spring Boot, React, and JQuery and Application Resiliency to ensure the application's security and stability.
- Worked on application deployment on Kubernetes and ensured operational stability through debugging and maintenance. Built and deployed REST over HTTPS services to read and ingest CSV files into RDBMS.
- Developed SOAP based web-services using Tibco BW5 and XML based WSDL's.
- Created data pipelines that connected to Hive, MongoDB, and Oracle, and wrote Pyspark scripts to clean and transform the data.
- Modeled QoS performance KPIs (SAIFI and SAIDI), using advanced time-series analysis techniques SARIMA and Holt-Winters.
- Developed 15 real-time analytical dashboards for monitoring the live performance of different web services
- Implemented FP-growth and Apriori algorithms to analyze transaction data enabling the development of targeted marketing campaigns and informed decisions about product placement, promotions etc. The outputs of the analysis provided valuable insights to the Sales and Marketing teams, resulting in a 7% increase in profit through informed decision-making.

## PERSONAL AND ACADEMICAL PROJECTS

### 1. Personal Website/Portfolio- [thebigshaikh.github.io/](https://thebigshaikh.github.io/)

JavaScript, JQuery, Bootstrap, HTML

- Designed an Ubuntu themed portfolio website using vanilla JavaScript, HTML and Bootstrap.
- Developed a custom command line interface like Ubuntu's CLI using JavaScript for the users to interact with the website
- Additionally, developed a GUI exactly like Ubuntu's with the same look and feel, fonts, icon pack and theme.

### 2. HUMAN- Hadoop Used Medical Analytics

Angular, Hadoop, Hive, Sqoop, Python MySQL

- Built a web application with Angular JS, HTML/CSS front-end and python (Flask) back-end to store electronic health records.
- Designed and built a multi-node Hadoop based data warehouse (OLAP) to store historical data of patients.
- Wrote python scripts to automate data flow between OLTP & OLAP through Sqoop and performed predictive analytics to get insights and trends between patients, doctors, diseases, location, hospitals etc.

### 3. A Data Engineering/Science solution for Cryptocurrency Data

Python, Spark, Kafka, Sklearn, AWS, SQL

- Developed data pipelines, pre-processing scripts, ETL scripts, visual dashboards and forecasting model on cryptocurrency data.
- Built a custom directory poller to monitor the data lake for new files and publish the files metadata on Kafka topic.
- Cleaned and transformed the file data in Pyspark and loaded it into AWS Redshift and AWS RDS using PL/SQL Functions.
- Developed Tableau dashboards on this data and forecasted Bitcoin prices using RNN and ARIMA.