

PURBA ROY

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EDUCATION

University of Washington, Seattle

Master of Science, Information Management | Specialization- Data Science, Business Intelligence

Jun 2021

GPA 3.8/4.0

- Coursework: Advanced RDBMS, Business Intelligent Systems, Data Visualization, Data Science, Cloud Computing

University of Mumbai, India

Bachelor of Engineering

Aug 2016

GPA 3.6/4.0

- Coursework: Data Structures & Algorithms, Object Oriented Programming, Probability & Statistics, DBMS

TECHNICAL SKILLS

- **Languages:** Python, R, C#, HTML, CSS
- **Database:** SQL, MySQL, MS SQL Server, SSMS, SSIS, PostgreSQL, MySQL Workbench
- **Tools & Frameworks:** Tableau, Jira, Lucidchart, Confluence, Git, Azure, SharePoint, Visual Studio, Flask, Django

PROFESSIONAL EXPERIENCE

Tesla, Inc., Seattle - Software Engineer (Data) Intern

Jan 2021 - Present

- Developing an end-to-end data engineering framework, and multiple ETLs to streamline data flow in Python, SQL, MySQL; and developing interactive dashboards for asset management, reducing manual efforts by 60%.
- Performing data mining, cleaning, analysis using Python & SQL, and visualizing key metrics in PowerBI for asset management.
- Developing an inventory management system to facilitate effective equipment detection for the Gigafactory facilities team.

Diversity Policy, Seattle - Software Engineer Intern

Jun 2020 – Jan 2021

- Leading the development of a web application (SQL) with complex features such as a job board, and user dashboards.
- Developing database architecture by implementing Indexing, Logging, Caching, and automating the backup restoration (SQL).

University of Washington, Seattle - Research Assistant (Data Engineer)

Jun - Sep 2020

- Created database architectures, designed data models, and improved the post processing workflow by 40% using PostgreSQL.
- Developing a website using Python Flask, JavaScript, HTML and creating dashboards and data visualizations using Plotly Dash to analyze national rental housing data.

Tata Consultancy Services, India – Software Engineer

Sep 2016 - Aug 2019

- Spearheaded the end-to-end project development of an E-mail management website using back-end (C#, SQL) and front-end programming languages which helped clients manage their customer communication.
- Increased customer satisfaction by 48% by developing notification tools for auto-responses and email triggers in C# and SQL.
- Boosted customer loyalty by 35% by creating a web API (C#, SQL) for Quality Check, Performance Monitoring reports.
- Implemented machine learning algorithms and created a spam-email filter in Python, C#, and SQL that analyzed large volumes of customer data based on the recipient, subject, and body, with an accuracy of 86%.
- Created business requirement documents, solution designs and developed data architecture for an Invoice Management System.
- Contributed to each phase of the Software Development Lifecycle (SDLC), from requirement analysis, design, development, providing test cases for SSA and Web inspect testing, and deployment.

PROJECTS

NASA International Space Apps - Winner, Google TechStars Startup - Winner ([See link](#))

- Using NASA's open data to build an interactive platform using machine learning (SQL, Python) to develop a sustainable infrastructure to mitigate environmental challenges.

Sales BI Solution (Business Intelligence, Data Analysis, Tableau)

- Designed an end-to-end BI Solution to aggregate sales data to develop data-driven insights for 500k+ transactions.
- Visualized key metrics using a Tableau dashboard and providing recommendations for improving product sales.

Analysis of Spotify Music (SQL, C#, Data Visualization)

- Designed a database model in SQL to aggregate the music listening patterns of people from around the world by powering a web UI (C#) that allows users to explore the data by country and compare the popularity of genre and artist.

CONFERENCES & LEADERSHIP

- Active member of the **Grace Hopper Celebration** for Women in Computing (**GHC-2020**).
- Vice President for the Association of Information Management Students, University of Washington.