

## Shivani Bhalerao

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[LinkedIn](#) | [Portfolio](#) | [Google Scholar](#) | [GitHub](#)

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### TECHNICAL EXPERTISE:

<b>Programming Languages:</b>	Java, C, Python, C++, JavaScript, SQL, HTML5, CSS3, Hack, R, GraphQL.
<b>Web Technologies:</b>	Spring MVC, AngularJS, Android Studio, React, React Native, Django, Flask, Elasticsearch, Mercurial, GitHub, Git, SVN, Docker, CI/CD, SOAP, REST API, Postman.
<b>Database Technologies:</b>	MySQL, SQLite, Redis, DynamoDB.
<b>Cloud Technologies:</b>	Google Cloud Platform (GCP), Amazon Web Services (AWS).

### WORK EXPERIENCE:

#### Meta Platforms, Inc. (formerly known as 'Facebook') – Software Engineer Intern

May 2022-August 2022

*React, React Native, Relay, GraphQL, Hack, Mercurial*

- Developed a non-business user permission management feature for the MBS web and mobile applications using React, React Native, GraphQL, and Hack, resulting in a 95% time reduction for business admins.
- Improved the user experience for business employees by implementing a restricted permission management feature on the front-end using React Native, GraphQL, and Relay.
- Contributed to feature ideation during a collaborative dogfooding session with the Facebook Lite design team.
- Presenting the newly delivered features to over 250 engineers and leaders of MBS during a 3-month internship demonstrated strong communication and technical abilities.

#### Tata Consultancy Services – Assistant Systems Engineer, Mumbai, India

June 2019-June 2021

*Java, Spring MVC, Angular, MySQL, SVN*

- Achieved a 62% reduction in time required for reservation modification by developing a feature on the back-end and front-end using Java, Spring MVC, Angular, and SQL.
- Solved inconsistencies between the admin portal and reservation system by designing and executing a critical extension and batch process using Java, AngularJS, and SQL, resulting in a 66% increase in system reliability and consistency.
- Successfully stewarded a comprehensive testing plan for a team of 8 engineers to test new features, and facilitated knowledge transfer initiatives.
- Designed and implemented a statistical model for the Utilization Management System with a focus on achieving over 95% accuracy in calculating the rental car fleet's vehicle utilization routine.

### EDUCATION:

#### Northeastern University, San Jose, CA (Khoury College of Computer Sciences)

September 2021-May 2023

*Master of Science in Computer and Information Sciences, GPA: 3.94/4.00*

#### Projects

##### *Flexible Calendar Search - Flask, Elasticsearch, Python, Google Collab, Git*

- Developed an efficient calendar text search application based on mathematical model of the synonym similarity score and Levenshtein distance combination, used NLP techniques to enable complex text search queries and ranked results, that lacked in widely used calendar applications, by using flask for frontend and elasticsearch for backend and indexing.

##### *AI game player - Python, Git*

- Built AI agents for the connect-4 game using heuristics, decision tree, minimax with alpha-beta pruning, monte carlo and Q-learning algorithm as a part of the foundation of Artificial Intelligence course and found minimax agent and monte carlo agent to be the top 2 performing agents for this use case.

##### *Task Tracker App - Android Studio, Java*

- Created an android mobile application that tracks completed and incomplete tasks among a group of users, and used gamification, reminder alarms and graphic designs for user engagement.

##### *Teaching Assistant - Data Structures and Algorithms, Database Management System*

- Conducted 1:1 sessions with the students to help them apply algorithmic techniques like greedy algorithm, dynamic programming, searching, sorting, and understand their complexities using various data structures like linked lists, hash tables, graphs, trees, maps, etc.
- Guided students in database modeling, creating the database server, web application server, SQL scripts, and application development.

#### University of Mumbai, Mumbai, India

July 2015-May 2019

*Bachelor of Engineering in Information Technology, GPA: 8.15/10.00*

#### Project

##### *Supply Chain Management using Blockchain*

- Conceptualized and proposed the use of blockchain and some of the sensors in dairy supply chain to increase consumer trust by eliminating frauds, reducing errors, modifying way of management, and increasing transparency. This study was published in the IEEE journal (Electronic ISBN: 978-1-5386-7799-5)