# Khushi Gandhi

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## **SUMMARY**

**Software Engineer** with 2+ years of experience in finance and trading firms developing scalable, high-performance systems using Java, Spring Boot, and SQL. Hands-on experience in CI/CD pipelines, automated deployments, and production support.

### **EDUCATION**

## University of Massachusetts, Amherst Massachusetts

Masters of Science in Computer Science

• Relevant Coursework: Database Design, Data Science, Advanced Algorithms, Information Retrieval

Manipal Institute of Technology, Karnataka, India

Bachelor of Technology in Information Technology

• Relevant Coursework: Data Structure and Algorithms, Object Oriented Programming, Software Engineering

**TECHNICAL SKILLS** 

Languages: Java, C++, Python, HTML, CSS, Javascript, SQL, GraphQL

Frameworks: Spring Boot, React, Vue

Tools and Concepts: Cloud Computing, Git, Systems Design, Microservices, Database Architecture, Distributed Systems

#### **EXPERIENCE**

## Software Developer Intern | Interactive Brokers - Connecticut, US

June 2025 - Present

Expected Graduation: May 2026

June 2018 - June 2022

CGPA: 3.7/4.0

CGPA: 4/4

- Rebuilt CRM front-end navigation by designing a global breadcrumb system, removing **300+** lines of legacy code and making the application easier to maintain.
- Built components for dashboard widgets, enabling users to customize their workspace and view real-time data through backend APIs and database queries.
- Enhanced application responsiveness by resolving 7 user-reported issues using Vue and JavaScript.

# Software Developer | Deutsche Bank - Pune, India

July 2022 - August 2024

- Collaborated with cross-functional teams of **50+ members** in an agile environment to deliver scalable fintech applications for onboarding of banking clients and raising alerts to detect anomalies in transaction workflows.
- Improved data job uptime by 30% by engineering a fallback mechanism in Spark workflows for third-party service disruptions.
- Reduced manual efforts by 40% by automating report generation with a cron job to fetch data for new regional clients.
- Implemented 12+ end-to-end **GraphQL** and **REST API** queries to streamline UI-backend interactions across 5 microservices, along with writing multiple **SQL** queries in JDBC for efficient data retrieval.
- Identified and resolved **15**+ critical issues through testing, debugging, and code reviews, while also ensuring successful deployments by validating Jenkins **CI/CD** pipeline runs.

#### **PROJECTS**

## IMDB Query Engine | Java, SpringBoot, Maven 🗷

January 2025 - April 2025

- Designed a **relational query engine** to reduce disk I/O overhead when retrieving pages from over **70 million** records by incorporating a custom buffer manager to cache frequently accessed data using an **LRU** replacement policy.
- Engineered a 100× query speedup through custom B+ Tree indexing mechanism supporting fast searches on both clustered and unclustered indexes.
- Built a query executor from scratch to process records from 3 relational tables, designing scan, selection, projection, materialization, and **Block Nested Loop (BNL)** joins operators using a fixed execution plan.

SilentSpeak: Muted Speech Detection Using Jaw Motion | C. Python 7 October 2024 - December 2024

- Developed a phone control system to improve accessibility for users in noisy settings or with speech impairments.
- Applied Random Forest ML classifiers to infer commands, achieving 88% accuracy during a live demonstration.
- Awarded Best Project in the course that offers an inclusive solution where audio-based systems are impractical.

#### **CERTIFICATIONS**

AWS Certified Cloud Practitioner

Codepath Intermediate Technical Interview Prep
Codepath React Web Development Course
Google Cloud Digital Leader

July 2025

January 2025 - May 2025

January 2025 - May 2025

July 2024