NEHA KOLAMBE

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EDUCATION

University of Colorado, Boulder **August 2024 – May 2026**
Master of Science in Computer Science, ***GPA: 4/4*** *Colorado, USA*

Sardar Patel Institute of Technology **August 2018 – May 2022**
Bachelor of Technology in Information Technology, ***GPA: 9.07/10*** *Mumbai, India*

TECHNICAL SKILLS

Languages: Python, Java, C++, SQL, Bash, PHP, JavaScript
Frameworks and Libraries: Hive, JDBC, Spark, REST APIs, Junit, Cucumber, Flask, Docker, Spring, Spring Boot, React, Django, Tkinter, Swing, AWT, TensorFlow, Pandas, NumPy
Databases: SQL, MySQL, Oracle, MSSQL
Tools and Technologies: Maven, Gradle, Git, Prometheus, Grafana, YAML, JSON, IntelliJ, Eclipse, Microsoft Visual Studio, PyCharm, Junit, Mockito, Docker, Openshift Fabric, Bitbucket, WordPress, Tableau, Helm, Jenkins
Cloud and Distributed Computing: Kubernetes, AWS, Glue, EC2, RDS, GCP, Google Cloud Compute, Google Cloud Storage (GCS), Google Kubernetes Engine (GKE), GCP Functions, RabbitMQ, Databricks, Apache Airflow
Operating Systems: Linux, MacOS, Windows

EXPERIENCE

Deutsche India Pvt. Ltd., Deutsche Bank Group | *Senior Analyst* **July 2022 – July 2024**
- Developed a resilient data ingestion pipeline using Java and Spring Boot, consolidating diverse sources into an Oracle database, improving pipeline reliability by 35% and ensuring seamless integration for NII calculations
- Created an automated testing framework to streamline data onboarding processes, reducing manual effort by 50% and accelerating feature deployment cycles
- Collaborated with DevOps teams to enhance CI/CD pipelines in TeamCity and containerized deployments on OpenShift, improving deployment consistency and reducing manual intervention by 30%
- Delivered critical reconciliation features by closely collaborating with stakeholders, achieving 100% adherence to project timelines and ensuring accurate financial reporting

Panel Technologies India Private Limited | *Web Development and Research Intern* **January 2022 – July 2022**
- Developed a recommendation tool utilizing Python, Scikit-learn, and hybrid filtering techniques, improving suggestion accuracy by 15% and enhancing user engagement metrics by 20%
- Automated deployment processes with Git and Bitbucket, reducing release cycles by 25% and ensuring smooth CI/CD implementation
- Built and deployed machine learning pipelines, improving model precision by 20% through effective feature engineering and rigorous preprocessing of structured data
- Revamped the company's website using HTML, CSS, and JavaScript, resulting in a 30% decrease in bounce rates and a notable improvement in user experience

Panel Technologies India Private Limited | *Web Development Intern* **October 2020 – November 2020**
- Designed and launched the company website using HTML, CSS, and JavaScript, increasing customer sign-ups by 15% within the first month
- Enhanced site visibility and traffic by implementing SEO strategies and integrating Google Analytics, achieving a 20% increase in organic traffic and higher conversion rates

PROJECTS

NarrateNow: Chapter-wise audiobook generation service - Link **December 2024**
Developed a Python-based scalable application that converts EPUB books into chapter-wise audiobooks exercising Google Text-to-Speech API. Designed a Kubernetes-based microservice architecture, employing RabbitMQ and Redis for task orchestration and real-time tracking, while integrating Google Cloud Storage for secure data handling. The service processed an 11-chapter book (150 pages) in under 4 minutes and demonstrated the ability to handle 50+ simultaneous requests without errors, emphasizing reliability and scalability.

MoodyTunes: A DL-based Music Mood Classifier - Link **December 2024**
Developed a deep learning-based music classification system by make use of Python, TensorFlow, and Keras to categorize songs into emotional moods—happy, sad, calm, and energetic. Integrated enriched datasets from Spotify (278k songs) and Last.fm, achieving 90.67% accuracy by leveraging MFCCs, spectral contrast, and user tags. Optimized neural networks such as ANN, RCNN, and LSTM, resulting in an average performance boost of 4% across all models.

PUBLICATIONS

Detection of Mental Disorder on Social Platform - Link **February 2022**
Engineered an LSTM-based prediction model with 97% reliability to identify mental disorders as per consumer behavior on social platforms. The platform offered comparative analysis of data over specific periods, aiding users in assessing potential conditions. A custom survey tool collected behavioral evidence, providing actionable insights into trends, while advanced machine learning techniques ensured the model's robustness and reliability.

Farming Made Easy using Machine Learning - Link **May 2021**
Designed a predictive model utilizing Python and Scikit-learn to forecast crop prices built on historical pricing and weather data, improving precision by 20%. Developed a bilingual chatbot for real-time communication and a shop bot for e-commerce integration, boosting user engagement by 25%. Integrated multimedia guides to simplify complex farming techniques, enabling widespread adoption among farmers.