

## Ritika Lath

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### EDUCATION

**Vidyalankar Institute of Technology, (NAAC accredited with the highest-grade A+)**

**Mumbai, India**

Bachelor of Computer Engineering (GPA: 9.84/10)

**Aug' 19 - May'23**

**Relevant Coursework:** Python, DBMS, DWM, Probabilistic Graphical Model, Quantitative Analysis, Artificial Intelligence, Big Data Analytics, Social Media Analytics, Machine Learning, Applied Data Science

**Kischinchand Chellaram College**

**Mumbai, India**

Higher Secondary School (Percentage 79.9 %)

**Jul'17 - May'19**

**Relevant Coursework:** Physics, Chemistry, Maths, Biology, Information Technology

**Gloria Convent High School**

**Mumbai, India**

Secondary School Examination (Percentage 94 %)

**May 2017**

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### ACADEMIC PROJECTS

**Title - Real-Time American Sign Language Recognition System, (8<sup>th</sup> Semester, 2023)**

- **Summary** - Created a real-time American Sign Language recognition system for the deaf. Used OpenCV for Image processing. Employed a convolutional neural network with softmax activation to classify data into 10 ASL classes.

**Title - Slang Language Detection and Recognition (8th Semester, 2023)**

- **Summary** -- Slangs used in social media were detected using various algorithms like Gaussian Naive Bayes, and Random Forest. We used LSTM and bidirectional LSTM deep learning models. BERT was used to recognize slang.

**Title - Customer Segmentation, (6<sup>th</sup> Semester, 2022)**

- **Summary** - Created an unsupervised strategic supermarket marketing model. Studied KMeans, DBSCAN, and Agglomerative Hierarchical Clustering for spending-based consumer clustering. Aiming to enhance profits via focused marketing and business techniques.

**Title - Email Spam Detection Model (3rd Semester, 2020)**

- **Summary** - A supervised machine learning project classified the email as spam/ham. Classification was done using a turicreate logistic classifier. The model was then deployed on Gmail accounts using Gmail APIs to further evaluate its accuracy in the real world.

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### PUBLICATIONS

**Title: "Intelligent Sign Language Recognition Enhancing Accessibility for the Deaf Community"** IEEE conference on computing, communication and network technologies (ICCCNT-2023)

**Link:** <https://ieeexplore.ieee.org/document/10307621>

**Title: "Slang language Detection and Identification in Text"** IEEE conference on computing, communication and network technologies (ICCCNT-2023)

**Link:** <https://ieeexplore.ieee.org/document/10308036>

**Title: "Enhancing Mental Health Care: A Proposed Approach for Depression Detection using CNN and LSTM Model"** IEEE Global Conference on Information Technologies and Communications (GCITC-2023)

**Link:** <https://ieeexplore.ieee.org/document/10426143>

**Title: "PAWnnect: Pioneering IoT-ML Driven Pet Monitoring"** Intelligent Computing Techniques for Smart Energy Systems (ICTSES 2023)

**Link:** [https://www.researchgate.net/publication/387504911\\_PAWnnect\\_Pioneering\\_IoT-ML\\_Driven\\_Pet\\_Monitoring](https://www.researchgate.net/publication/387504911_PAWnnect_Pioneering_IoT-ML_Driven_Pet_Monitoring)

**Title: "Introduction to 'Introduction to Generative AI'"** Book chapter in progress

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### PROFESSIONAL EXPERIENCE

**Jio Platforms Limited**

**Mumbai, India**

AiOps (Data Engineering team)

**Oct'23-Present**

- Engineered and optimized scalable data workflows on Jio CloudXP, integrating diverse data sources (CSV, REST APIs, Kafka) into Oracle DB and Elasticsearch using Python, PySpark, and SQL. Built and automated ETL pipelines, ensuring efficient data processing and real-time analytics.
- Managed end-to-end data engineering tasks, including troubleshooting memory management issues, optimizing query performance, handling environment upgrades, and migrating jobs to SOK clusters.

Collaborated with cross-functional teams to enhance data infrastructure, ensure system reliability, and resolve critical issues efficiently.

#### **DotSyndicate**

Freelancer

**Mumbai, India**

**Aug'23-Oct'23**

- Developed and enhanced frontend functionalities using Next.js and TypeScript, seamlessly integrated with the backend to achieve comprehensive system functionality. Proficiently contributed to the full-stack development, showcasing a strong command of modern web technologies.

#### **GirlScript Summer Of Code**

Contributor

**Mumbai, India**

**May'23 - Aug'23**

- Collaborated on open-source initiatives in data science and web development projects under professional guidance. Used Matplotlib, Seaborn, and Plotly to analyze state-level crime data in India. Elevated capabilities of two projects by implementing HTML and CSS enhancements.

#### **Vidyalankar Institute of Technology**

Artificial Intelligence Intern

**Mumbai, India**

**Jun'21 - Aug'21**

- Engineered "InBOT - The Induction Bot" during an in-house Internship. Launched on a mirrored website, it adeptly addressed queries spanning clubs, festivals, academics, sports, history, and beyond. Employed HTML, CSS, Bootstrap, JavaScript, NLP, and ANN to craft this intelligent solution.

#### **Prepintern**

Web Development Intern

**Mumbai, India**

**Jun'20 -Jul'20**

- Acquired understanding of MVC architecture. Employed Laravel backend to construct an internship portal connecting students and employers. Enhanced user experience through Vue.js frontend and Vuetify components for UI design.

#### **Vidyalankar Institute of Technology**

Co-Author

**Mumbai, India**

**Mar'20 - Jun'20**

- Managed a 10-student team, ensuring balanced workload and effective communication for timely task completion. Led the creation of the recommended Semester 2 Engineering Chemistry e-book through thorough research and information compilation from diverse sources.

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### **VOLUNTEERING AND EXTRACURRICULAR ACTIVITIES**

#### **She Can Foundation**

**Aug'23 - Sept'23**

- Raised funds for **She Can Foundation**, a nonprofit empowering women and girls through education and skill-building, fostering positive change and equal opportunities.

#### **Events Core, Google Developer Student Club VIT**

**Aug'21 - Aug'22**

- Founding member of this club in our college. Key member of a 10-person team in organizing webinars, workshops, etc. Skilfully managed events with 400+ participants, ensuring seamless execution.

#### **Web Developer, Chezuba**

**Jul'21 - Oct'21**

- Developed an official website for SAVE OUR ENVIRONMENT TRUST, a Registered Non-profit Trust organization based in South Africa.

#### **General Secretary, Computer Engineering Students Association, VIT Chapter**

**Aug'21 - Aug'22**

- Led a team of over 30 and acted as a liaison between convenors and committee members. Coordinated event preparation and execution with speakers, convenors, and core committee. Optimized team synergy by efficiently assigning duties.

#### **Cultural Core, Verve VIT**

**Jan'21 - May'21**

- Managed guest hospitality and judge coordination during my tenure. Led cultural activities, from fresher events to inter-dance and inter-drama teams. Orchestrated major event "Mr. and Miss VIT" at annual college festival, Fest Verve.

#### **PR and Marketing Team, Digit Squad VIT Mumbai Student Club**

**Oct'20 - Aug'21**

- Founding member of this club in our college leading its establishment. Directed club's mission promotion within college. Managed public relations, drafted event publicity messages for Digit Squad Club, successfully attracting student participation.

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### **TECHNICAL SKILLS**

- **Languages:** Python, C, Java, R, Bash
- **Web development:** HTML, CSS, Bootstrap, Javascript, JQuery Reactjs, Nextjs, Typescript Vuejs, Laravel, ExpressJs, Flask
- **Databases:** SQLite, PostgreSQL, MySQL, MongoDB, OracleDB

- **Machine Learning:** Numpy, Pandas, Tensorflow, Scikit-Learn, Keras, Matplotlib, Seaborn, Plotly, OpenCV, ML algorithms
  - **Software:** Microsoft Excel, PowerPoint, PowerBI, Tableau
  - **Technologies:** Apache Spark, Docker and Kubernetes, Azure Devops, Kafka, Logstash, Elastic Search
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#### CERTIFICATIONS

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| ● Applied Data Science Lab - World Quant University                              | <b>April 10th, 2023</b>   |
| ● Advanced Google Analytics - Google Analytics Academy                           | <b>March 31st, 2023</b>   |
| ● Data Science: Visualization - HarvardX   | <b>January 24th, 2023</b> |
| ● Excel Skills Virtual Experience Program - JPMorgan Chase &Co.                  | <b>July 3rd, 2023</b>     |
| ● Neural Networks and Deep Learning - deeplearning.ai                            | <b>May 5th, 2020</b>      |
| ● Emotion and Sentiment Analysis with/without NLTK using Python - Udemy          | <b>April 3rd, 2021</b>    |
| ● Introduction to R - Infosys  | <b>October 30th, 2021</b> |
| ● Machine Learning Foundations: A Case Study Approach - University of Washington | <b>October 9th, 2020</b>  |

#### ADDITIONAL ACCOMPLISHMENTS

- Portfolio Link: [https://ritikalath30.github.io/My\\_website/](https://ritikalath30.github.io/My_website/)
- GitHub Link: <https://github.com/ritikalath30>