

RITIKA MOTWANI

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EDUCATION

New York University - Courant Institute of Mathematical Sciences

Master of Science, Computer Science

Expected May 2024

New York City, NY

Algorithms, Cloud Computing, Operating Systems, Multicore Processors, Big data Application Development, CV

Indian Institute of Information Technology Allahabad

Bachelors of Technology in Information Technology with honors. GPA : 8.87/10

2015 - 2019

Prayagraj, India

WORK EXPERIENCE

Glints

Software Engineer (Team Lead)

Aug 2019 - July 2022

Singapore

- Built a platform for recruiters to search, filter, source candidates from the 5 million+ talents database and manage them in different recruitment pipelines and automate certain steps like scheduling interviews. Worked on candidate recommendation algorithms for different jobs. It Helped recruiters make 2+ matches a month.
- Contributed in the architecture of a Kafka Streams stateful pipeline in Scala, which aggregates on Postgres change data events and sinks to Elasticsearch bringing down sync frequency from 24h to <1s.
- Led the implementation of migrating our product to a different access control middleware/permissions model and released it without any downtime or data loss for 13k+ users. Investigated and resolved production OOMs and latency issues in NodeJS, Redis, Postgres services through query optimizations.
- Responsible for architecture, design and development of features, ensuring data integrity for future decisions.
- Assisted in building a highly autonomous agile scrum team from scratch in the organization.

Princeton University

Research Software Engineer

June 2023 - July 2023

Princeton, NJ

- Contributed to research on effective parental teaching methods for young children's learning within a team.
- Developed a secure software solution enabling the categorization of videos through computer vision algos and created a user friendly database with filters of over 100k videos based on activities helping researchers conduct data analysis. Led the implementation of video transcription and diarization using OpenAI Whisper and pyannote, enhancing content accessibility on the platform.

Google Summer of Code

with FOSSASIA

Jun - Aug, 2018

- Created an open sourced event manager using REST APIs, Flask, Postgresql and EmberJS with payment gateways.

PUBLICATIONS

Khare, Abhinav, Motwani, Ritika, Patil, Jayesh, Akash, S., Kala, Rahul "Learning the Goal Seeking Behaviour for Mobile Robots." 2018 3rd Asia-Pacific Conference on Intelligent Robot Systems (ACIRS). IEEE, 2018.

SELECTED PROJECTS

Easy Eyes

New York University - Research Assistant

Collaborating with Prof. Denis Pelli on developing a full stack web application (on Netlify) with signal processing for an experiment compiler, enabling precise vision and hearing tests, especially sensitivity and crowding. The project goals is to uncover early dyslexia predictors and investigate correlations among visual measures.

Comparison Study: Cloud Providers Leveraging K8S for ML

New York University - Cloud Computing

Explored the ML model deployment on major cloud providers, while leveraging Kubernetes. Reviewed the metrics, FLOPS, CPU utilization, and how the system managed resource-demanding loads. Used CPU utilization as the key metric for horizontal autoscaling, influencing the number of nodes associated with the cluster.

Automatic Speech Recognition system(ASR)

Nanyang Technological University - Research Assistant

Designed data flow pipelines, integrated speech APIs, and developed a web-based role-based transcription text editor with re-speak capabilities for post-transcription processing in collaboration with investors for the system.

HONORS & AWARDS

- **Open Source Conferences:** Got scholarships for GraphQL Conf 2023 in SF, Linux Summits in Tokyo and Paris.
- **Hackathon:** Won the best team award in Hack In The North, IIITA. Won the internal Glints hackathon.

SKILLS

Python, C++, SQL, javascript, CSS, HTML, GraphQL, Docker, Typescript, React JS, Redux, NodeJS, Git, NextJS, Postgresql, Pytorch, AWS, Mongo, Kubernetes, ExpressJS, Django, CUDA, ZooKeeper, Redis, Go, Rust, Java, ci/cd, Angular, Kafka, Google Cloud, PsychoJS, IBM Watson