

Rahul Kumar

linkedin.com/rahulkragen
github.com/rahulkragen

Email : r.rahul4511@gmail.com

Mobile : +91 709-117-5935

EDUCATION

- **Birla Institute of Technology** Mesra, India
Bachelor's in Computer Science and Engineering - CGPA 7.8/10 *Jun 2017 - May 2021*

EXPERIENCE

- **Palo Alto Networks** Bengaluru, India
Staff Engineer *Oct 2023 - Current*
 - **Application Search:** Led the search component of the initiative, implementing refined methodologies to enhance the discoverability and management of cloud resources with **95th percentile latency of around 100ms over 10M assets**.
 - **Cloud Resource Clustering:** Worked on the conceptualization and seamless execution of the 'Application-centric Cloud Resource Clustering,' showcasing profound expertise in intricately mapping data from Kubernetes clusters to a spectrum of diverse cloud assets.
- **Palo Alto Networks** Bengaluru, India
Software Engineer *Aug 2021 - Oct 2023*
 - **Distributed Tracing:** Spearheaded the adoption of distributed tracing with OpenTelemetry across multiple teams, enabling effective observability solutions for **more than 15 teams and over 50 services**.
 - **High Volume High Velocity Log Ingestion:** Worked on a Spark based solution for the ingestion of network flowlogs, resulting in a reduction of ingestion lag **from 150+ hours to 10-30 minutes**. The system processes **nearly 100GB of data per hour** currently.
 - **Data Persistence Platform:** Developed a robust platform for building relationships among cloud resources. It decoupled the relationship resolution from the ingestion system, enabling independent development of both systems. It's **handling 25+ resource types across 3 major cloud providers** as of today.
 - **Resource Query system:** Built a query system for an internal platform, retrieving Kubernetes resources and constructing the application context of a cloud environment.
 - **Integration Testing in CI:** Created an integration testing solution using LocalStack and Test Containers, significantly reducing production deployment time and enabling faster iterations for a more stable and robust system.
 - **eBPF:** Performed a proof of concept (POC) on the usage of eBPF for providing real-time security solutions in a Kubernetes environment, exploring its potential for enhanced security and threat detection.
 - **Talks and Collaboration:** Delivered informative and engaging tech talks on topics **Implementing Distributed Tracing** and **High Volume High Velocity Ingestion platform**.
- **MAQ Software** Remote
Associate Software Engineer *Jan 2021 - July 2021*
 - **Azure Function App:** Migrated internal data conflict check process from Microsoft Power Platform to Azure Cloud Function resulting in **reduction of execution time from 16-20 hours to about 5 minutes**.
 - **.NET Plugins:** Built .NET plugins for internal Power Apps to enable custom behaviors. Worked with Xrm SDK Tools.
 - **Power Apps:** Built Canvas apps for external clients. Worked with Power Automate and Azure Logic apps to build custom features.
- **Birla Institute of Technology** Ranchi, India
DC++ Administrator and ACM Web Master *Jun 2019 - July 2021*
 - **Improvement and administration of DC++ Server:** Administration and development of internal P2P file sharing network of BIT Mesra. **Used by 3500+ users** on college's internal network.
 - **Development and Administration of Aurora:** Management of local online judge Aurora as well as ACMs official website. Organized Data Structures and Algorithms workshop for college students.

ACADEMIC PROJECTS

- **Bitotsav 20:** Official Android app for BIT Mesra's annual cultural fest, **used by 1000+ users**. Implemented the entire project lifecycle, from UI/UX design to production deployment. Utilized Android Jetpack components such as Room ORM, LiveData and Lifecycle components, Material Design, and Navigation components.
- **Pantheon 19:** Official Android app for BIT Mesra's annual technical fest Pantheon, with **800+ active users**. Implemented the MVVM design pattern as the application architecture. Developed features and functionality to enhance the user experience of the app.

SKILLS SUMMARY

- **Languages:** Java, Golang, SQL, Scala
- **Tools:** Kubernetes, Docker, Spark, Kafka, Elastic Search, Springboot, Postgres, MemSQL, AWS