

AYANTIKA SARKAR

ayantikasarkar17@gmail.com | 9038528362 | Kolkata, India | [linkedin.com/in/ayantika-sarkar](https://www.linkedin.com/in/ayantika-sarkar)

SUMMARY

Organized, dedicated and ambitious Information Technology undergraduate with keen interest in development and designing of applications, excellent communication skills, thirst for learning, adaptability to new technologies and a believer in both hard work and teamwork. Currently working full-time as a Cloud Software Engineer with an experience of 4.5+ years.

EXPERIENCE

Cloud Software Engineer, Trellix India Pvt. Ltd. Mar 2024 - Present

- Optimized detection engine efficiency by developing a high-performance pre-filter, reducing computational overhead and cutting operational costs by 60%
- Mentored 3 new interns on best practices for Java/Spring development and Git workflows
- Increased the overall efficiency of the EDR detection funnel by 35%
- Collaborated with teams to resolve critical customer and production issues and bugs

Associate Cloud Software Engineer, Trellix India Pvt. Ltd. Aug 2021 - Mar 2024

- Improved the response time for search APIs by 70% through backend optimizations
- Implemented Linux and MacOS supportability within the EDR detection funnel
- Reduced data loss in the detection funnel by 40% through improved processing logic
- Served as scrum master for a cross-functional team of 20 employees, facilitating Agile ceremonies and sprint planning

Technical Intern, McAfee India Pvt. Ltd. Feb 2021 - Aug 2021

- Contributed to the development of new features and bug fixes for the EDR detection engine
- Re-implemented alerting mechanisms for unexpected statistical variations in the detection engine

PROJECTS & PUBLICATIONS

YARAWatch - Streaming Detection Engine Using YARA Nov 2024

- Designed and developed SpringBoot based streaming application for detection of multiple events.
- Utilised the YARA tool to create rules to detect OCSF based event JSONs.

Literature Review Of Implementation Of Machine Learning Algorithms For Improving The Network Security | [Publication](#) Jan 2024

- Analyzed the various ML techniques used in for improvising the network security
- Reviewed various ML algorithms in the field of network from various research works

Serial and Parallel based Intrusion Detection System using Machine Learning | [Publication](#) Jun 2021

- Worked in a team of 3 and proposed a new model based on the combination of SIDS and PIDS
- In PIDS, achieved an intrusion detection rate - DOS: 99.7%, probe: 98.8%, U2R: 99.4%, R2L: 98.5% and an intrusion detection rate of 99.1% for SIDS

Authentication and Secure Communication by Haar Cascade Classifier, Eigen Face, LBP Histogram and Variable Irreducible Polynomial in (2^8) finite field | [Publication](#) Jun 2021

- Worked in a team of 4 and proposed a secure modified AES with the help of different irreducible polynomial in GF (2^8) finite field.
- For face recognition, LBPH algorithm produced accuracies of 99.39% (still images), 99.32% (video recordings) and EigenFace produced accuracies of 99.28% (still images), 98.87% (video recordings)

COVID-19 Detection Using Chest X-Rays May 2021

- Worked in a team of 4 to establish a deep-learning model for detection of COVID-19
- Achieved an accuracy of 97.62% and 96.66% for the training and testing dataset respectively

EDUCATION

Master of Technology (MTech), Software Systems (Specialization in Security) Jan 2023 - Jan 2025

Birla Institute of Technology and Science (BITS), Pilani, India

CGPA: 7.98

Bachelor of Technology (BTech), Information Technology Jul 2017 - Jul 2021

West Bengal University of Technology, Kolkata, India

DGPA: 8.79

12th Standard (CISCE), Science May 2015 - May 2017

St. Xavier's Institution, Kolkata, India

Percentage: 86.5

10th Standard (CISCE), Science Apr 2014 - May 2015

St. Xavier's Institution, Kolkata, India

Percentage: 88.8

SKILLS

Languages & Frameworks : Java/J2EE, Spring Framework, SpringBoot, Gradle, Apache Kafka, REST API

Data storages : DBMS, RDBMS, MySQL, Apache Cassandra, JFrog Artifactory

Testing Frameworks & Tools : JUnit, Mockito, Behaviour-Driven Development (BDD), Apache JMeter

CI/CD : Docker, Kubernetes, Helm, TeamCity, Github Actions, ArgoCD

Data Visualization Tools : Grafana, Prometheus, ELK Stack

Cloud : AWS RDS, AWS S3, AWS EKS, AWS EC2

Tools : Postman, Github, Confluence, JIRA, IntelliJ, VSCode, Linux, Kong API Gateway, Regex, JSON

Security : Endpoint Detection & Response (EDR), YARA Tool, OCSF, OWASP Top 10, MITRE ATT&CK Framework

Others : Operating Systems, Data Structures & Algorithms, Scrum, Agile Framework, SDLC, Kanban, Microservices