# Aakansha Sigar

LinkedIn | Github

Email: aakanshasigar@gmail.com
Mobile: +91-7683043326

## Education

- **Indian Institute of Technology, Kharagpur** — July 2020 - June 2022
  *Master of Science - Mathematics; GPA: 8.84* — *Kharagpur, India*
  ***Courses:*** *Graph theory and Algorithms, Liner Algebra, Cryptography and Network Security, Probability and Statistics, Databases*
- **University of Delhi** — July 2017 - June 2020
  *Bachelor of Science(Honors) - Mathematics; GPA: 9.48* — *Delhi, India*

## Skills Summary

- **Languages**: C++, Python, Golang, Javascript, React, NodeJS, HTML/CSS, MongoDB, SQL
- **Software**: Jupyter Notebook, Siemens NX, Teamcenter, Visual Studios, GIT, Polarion
- **Platforms**: Windows, Linux
- **Soft Skills**: Leadership, Event Management, Writing, Public Speaking

## Experience

- **Siemens Digital Industries Software** — July 2022 - Present
  *Software Engineer* — *Pune, India*
  - **Assemblies Visualization Project**: Collaborated on a key project in NX-Assemblies team with 8 cross-functional teams across 3 release cycles, contributing to a early release project delivery. Facilitated the integration of Standard Visual Materials within multi-level assemblies
  - **Assemblies Small Strategic Customer Enhancements**: Managed customer enhancements, delivered robust assistance in loading Datum Coordinate Systems, accommodating 3 PMI configurations, 5 loading preferences and 2 NX environments within the monolithic Jts
  - **Facet to Parasolid (Classic/Convergent/Hybrid)**: Implemented a cutting-edge data integration system that imported Facetted data from diverse CAD platforms as Parasolid, leveraging advanced analytics to derive valuable insights and optimize operational efficiencies by 50%
  - Managed four features within Siemens NX CAD software. Mentored and guided 3 interns to proficiency in NX software. Resolved 70+ problem reports, contributing to overall enhancement of software functionality and user experience

## Projects

- **Professional Portfolio Profile**: Developed a professional portfolio website leveraging ReactJS, HTML, CSS, and JavaScript. Seamlessly integrated Node.js and MongoDB for a modern and responsive design
- **Performance Analysis Tool**: Designed and programmed a performance analysis automation tool to streamline regression detection, enabling targeted identification and prioritization of critical issues, reduced man hours by 65%
- **Rainbow Signature Scheme (Advancing Security in Multivariate Cryptography)**: Implemented a signature scheme using Python centered on solving a set of random multivariate quadratic systems(NP-hard problem), resulting in a 20% increase in efficiency for both signature generation and verification processes
- **Marking Scheme based on Performance Time**: Developed a Python tool to automate grade calculations based on performance time, resulting in a 45% reduction in manual hours

## Certification

- **Specialization Certificate in Algorithms(Stanford University, Coursera)** :
  Divide and Conquer, Sorting and Searching, and Randomized Algorithms
  Graph Search, Shortest Paths, and Data Structures
  Greedy Algorithms, Minimum Spanning Trees, and Dynamic Programming
  Shortest Paths Revisited, NP-Complete Problems
- **Design Patterns in Modern C++** : SOLID Design Principles, Creational Design Patterns
- **Linux OS(Illinois Tech, Coursera)** : Linux, Command-Line Interface, Linux File Systems
- **Python Data Structures(University of Michigan, Coursera)**: Data Structure, Python Syntax And Semantics

## Achievements

- Winner at PES-Innovations 2023 at Siemens DISW
- Awarded with Inspire Scholarship — July 2017 - June 2022
- Awarded with Gargi Scholarship — July 2015 - June 2017