

AYUSHI RASTOGI

☎ +91 7055345935 ✉ Email 🔗 linkedin 🐙 Github ⚡ LeetCode 🌿 GeeksforGeeks 📁 Portfolio

Education

NIT Uttarakhand

Bachelor of Technology in Computer Science and Engineering | **CGPA 9.02**

Aug 2016 - May 2020

Uttarakhand, India

Meerut Public Girls School, Meerut

2016

CBSE | Class XII | **Percentage 95.2 %**

Uttar Pradesh, India

Meerut Public Girls School, Meerut

2014

CBSE | Class X | **CGPA 10.0**

Uttar Pradesh, India

Technical Skills

Data Structure and Algorithms, Problem Solving, Full stack Web Development

Languages: C, C++, HTML, CSS, JavaScript, Python, Shell Scripting Language (Bash)

Frameworks: ReactJS, ExpressJS, NodeJS, MongoDB, Bootstrap, Flask

Operating System: Ubuntu, Linux, Windows

Hardware Description Languages: Verilog

Libraries Used: OpenCL, Pandas, Seaborn, Matplotlib, Numpy, PyMongo

RDBMS Used: MySQL, Redis, MongoDB

Tools: Xilinx Vivado, Alveo U200 FPGA, L^AT_EX

Core Subjects: Operating System, OOPS, DBMS, Computer Networking, Cryptography, Hardware Security

Experience

Research Assistant | *Indian Institute of Technology, Kharagpur*

Oct 2020 - May 2024

- Designed and developed an efficient and secure conjunctive and disjunctive query processing scheme over the symmetrically outsourced database. | *Tools Used: C++, Redis, python*
- Developed FPGA accelerator for search protocol of dynamic searchable symmetric schemes to improve search performance over encrypted databases. | *Tools Used: Verilog, Alveo U200 FPGA, Vivado, C++, OpenCL, Redis*
- Performed microarchitectural attack analysis for designing detection strategy for different platforms. | *Tools Used: Linux, Perf, C++, Matplotlib, LLM, OpenAI API*

Teaching Assistant | *Indian Institute of Technology, Kharagpur*

Jan 2022 - Jan 2023

- Programming and Data Structure(Theory)| Spring 2021
- Programming and Data Structure(Lab)| Autumn 2022

Summer Research Intern | Internship | *Indian Institute of Technology, Bombay* May 2019 - July 2019

- Design and worked on the implementation of information-flow security certification of Spark Program
- Implemented dynamic labelling axioms to present additional syntax and semantics for enforcing security checking of Ada-Spark Language Programs. | *Tools Used: K Framework, python*

Peer-Reviewed Conference Publication

- Arnab Bag, Debadrita Talapatra, **Ayushi Rastogi**, Sikhar Patranabis, and Debdeep Mukhopadhyay. “Two-in-one-sse: Fast, scalable and storage-efficient searchable symmetric encryption for conjunctive and disjunctive boolean queries.” In **23rd Privacy Enhancing Technologies Symposium (PETS 2023)**.
- Upasana Mandal, Shubhi Shukla, **Ayushi Rastogi**, Sarani Bhattacharya, and Debdeep Mukhopadhyay. “μLAM: A LLM-Powered Assistant for Real-Time Micro-architectural Attack Detection and Mitigation.” In **2024 IEEE/ACM International Conference on Computer-Aided Design (ICCAD)**, pp. 1-6. IEEE, 2024.

Projects

Movie Recommendation System | *HTML, CSS, Javascript, Flask, MongoDB, NLTK, ML* | Live | Source Code

- Developed a content based movie recommendation system using machine learning and nltk library.
- Recommendation system is integrated with Hotstar clone for users to search more movies similar to their watching genre.
- It provides recommendations based on the selected movie in the “Recommendations for You” section. By clicking on the “More Like This” button, users receive suggestions for movies with similar genres, themes, and ideas.

Achievements and Extra-Curricular

- Solved **200+** DSA questions on Leetcode and GeeksforGeeks.
- Mentored a B.Tech UG IIIrd year student for a minor project.