ROHIT ASHIWAL

System Software hobbyist with interests in the field Quantum Computing

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EDUCATION

Computer Science and Engineering (CSE)

Indian Institute of Technology (IIT), Roorkee
Cumulative GPA: 7.000/10

📅 July 2017 – Present

RESEARCH EXPERIENCE

Jülich Supercomputing Centre (JSC), Germany

📅 Feb 2020 – Present

Remote collaboration with Prof. Dirk Pleiter and Prof. P. Sateesh Kumar
Analysing performance of Asynchronous Many-Task runtime systems on ARM platforms.
- Implementing an optimal 2d stencil application in HPX utilising SIMD instruction set
- Benchmarking the application with Intel SSE/AVX and ARM NEON/SVE with GNU and ARM HPC compiler

WORK EXPERIENCE

Microsoft Student Partner

Microsoft

📅 April 2020 – Present

The MSP program is a global group of on-campus ambassadors who are eager to help fellow students, lead in their local tech community, and develop technical and career skills for the future.
- Organised virtual events such as, hackathons, and technology related workshops
- Mobilised fellow MSPs for the smooth running of the program

Student Software Developer

Google Summer of Code 2019 | Git

📅 May 2019 – Aug 2019

Git is a distributed version control system with focus on speed, data integrity, and support for distributed, non-linear workflows.
- Worked with Git to improve consistency of sequencer commands
- Introduced requested features to git-for-windows

ACCOMPLISHMENTS

- **XCTF, 2018 -** Ranked 105 among 5000 teams from all over the world
- **ACM ICPC, 2017 -** Honorable Mention in ACM ICPC Asia Region Amritapuri Online Contest
- **JEE Advanced, 2017 -** Top 3% among a pool of 220,000
- **JEE Mains, 2017 -** Top 0.8% in JEE Mains 2017 among a pool of 1.5 million

TECHNICAL SKILLS

Programming: Java, Python, Kotlin, JavaScript
System Programming: CUDA C/C++, Go, Rust
Utilities: Git, BigQuery, GDB, make, Doxygen
Others: Shell Scripting, Django, Qiskit, Jupyter, LaTeX

PROJECTS

Ray Tracer: A highly parallel ray tracing implementation using CUDA C++. Currently, it only implements simple spherical shapes with basic textures (lambertian, metal and glass).

LBakeDB: A fully functional Relational DB written in **C** that follows SQLite like commands.
A course project under Database Management systems

Assembler: SIC/XE assembler written in **C** supporting extended instruction set.
A course project under Systems Software

EXTRACURRICULAR ACTIVITIES

Mentor, SMP IIT Roorkee

📅 July 2019 – Present

Mentoring freshmen for smooth transition to campus life, motivating their academic & other endeavors.

Developer at Mobile Development Group

📅 Jan 2018 – Jul 2019

MDG is a small group of students that foster android development in the campus premises.

Hacker at InfoSec

📅 Aug 2017 – Jan 2018

InfoSec is a group of students that spread awareness about information and cyber security.

CERTIFICATES

- **Specialization: From Data to Insights with GCP Coursera**
  Issued on Dec 2019 see credential
- **Google Cloud Platform: Core Infrastructure Coursera**
  Issued on Dec 2019 see credential
- **Introduction to Quantum Computing Saint Petersburg State University**
  Issued on Dec 2019 see credential