ADITYA JAIN

M.TECH (CSE), IIT KANPUR

EDUCATION

M.Tech (CSE) 2020-Present
Indian Institute of Technology, Kanpur
CPI - 9.7 / 10

B.Tech (CSE) 2016-2020
Symbiosis University of Applied Sciences
CPI - 9.19 / 10

Class XII (PCM) 2015-2016
Divya Convent H.S. School
MPB - 76%

Class X (PCM) 2013-2014
St. Paul's H.S. School
CBSE - 9.8 / 10

CONTACT

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SKILLS

LANGUAGES KNOWN:
C, C++, Python, SQL, HTML, LATEX

Tools/Libraries:
Git, OPENMP, multi2sim, DRAMSIM2, MPI, Photoshop

POSITION OF RESPONISIBILITY

Teaching Assistant at IIT Kanpur
Sept'20 - Present

Responsible for conducting weekly labs, solving doubts, invigilating exams and grading assignments of the course ESC101.

Academic Achievement

Secured All India Rank 239 in GATE CSE 2020

Relevant Courses

- Database Systems
- Introduction to Machine Learning
- Data Mining
- Computer Networks

WORK EXPERIENCE

Intern
Techite Consultancy Services — June'17 - Aug'17

- Created VAPT reports using Nessus.
- Designed the company's website and handled social media accounts.
- Designed graphics and content for marketing campaigns.

RESEARCH PROJECT

Near Memory Graph Processor — July'21 - Present
(Thesis) Supervisor: Prof. Mainak Chauduri

- Designed a memory controller with processing capabilities that sends shadow blocks to the LLC, reducing cache misses in graph processing.
- Developed a *multi-core simulator* with *DRAM* for x86 architecture using multi2sim and DRAMSIM2 sims.

SELF PROJECT

Loan Management System — July'21 - Present

- Software created for NBFCs to sanction, disburse and manage loans, transactions, and to track the repayment of EMIs.
- It supports all necessary interfaces like SOA, Repayment, Overdue, *CIBIL*, *CRIF* and *NACH*.

COURSE PROJECTS

Cache Coherence Simulator — Nov'20 - Dec'20
(CS622) Mentor: Prof. Mainak Chauduri

- Developed a simulator to model a multi-core cache hierarchy supporting directory-based cache coherence for *MESI* protocol.
- Generated memory traces of multi-threaded programs using PinTool.

Prediction of child-births and mortality rates in India — Sept'20 - Dec'20
(CS685) Mentor: Prof. Arnab Bhattacharya

- Transformed and integrated the *HMIS* database and the *Census* data.
- Predicted child-births, stillbirths and mortality rates for each district.
- Identified the most key attributes contributing to the rates.

Sharing Profile Analysis for Cache Hierarchies — Sept'20 - Nov'20
(CS622) Mentor: Prof. Mainak Chauduri

- Created the program for *inclusive*, *exclusive* & *NINE* cache hierarchies.
- Implemented different cache replacement policies - *LRU* and *Belady*.
- Analysed the block-sharing and access-distance pattern for multi-core.

Analysis on Connectivity of Wikipedia Articles — Nov'20 - Dec'20
(CS685) Mentor: Prof. Arnab Bhattacharya

- Analysed the users' navigation paths and their patterns on Wikipedia.
- Measured the inter-reachability of user-desired web articles.
- Performed popularity analysis on article types and their connectivity.