Utkarsh Yadav
PG (II Year I Semester)
M.Tech. Computer Science and Engineering
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Indian Institute of
Technology
Roorkee

VERIFIED

Education

Year	Degree/Examination	Institution/Board	CGPA/ Percentage
2022	M.Tech. 1st Year	Indian Institute of Technology, Roorkee	8.842
2019	Graduate (UG)	National Institute of Technology, Delhi	7.930
2015	Intermediate (Class XII)	DAV Public School, Sreshtha Vihar, Delhi (CBSE)	93.40 %
2013	Matriculate (Class X)	Nirmala Convent School, Shivpuri, Bulandshahar, UP (CBSE)	9.800

Experience

Software Developer | ION Trading India Pvt. Ltd. Noida   June 2019 - August 2021
- Created and implemented full-fledged features related to different phases of the trade life cycle (such as contribution, negotiation, and post-trade operations) and downstream systems used for position analysis, settlement, bulk operations, etc.
- Worked independently with multiple clients to understand their requirements/issues and thereafter plan, develop, test, and release a solution to the said clients.
- Developed automated test suites (using the Robot framework) to increase test coverage by 10% and for ongoing development. This reduced the manual testing efforts for QA teams saving them 1-2 hours for each component they tested.
- Managed multiple high-priorities with tasks ranging from new feature development [scrum tasks], QA issues, client issues, etc.
- Led mentoring and knowledge-sharing sessions with new grads and colleagues across teams.

Internships

Fairness in AI recommendations | Under VAJRA program by govt. of India   June 2022 - July 2022
- Worked in joint collaboration with AI Institute (University of South Carolina) on analyzing the fairness in AI systems in the food domain in India.
- Made the FAMPS (Food And Meal Perception Survey) platform from scratch using PHP, JavaScript, MySQL, and Heroku (for hosting).
- Built an analytic view of the aggregated information for tracking the progress of the survey and analyzing the survey data.

Improving page rank algorithm | National Institute of Technology, New Delhi   June 2018 - July 2018
- Devised a new method to assign page ranks to nodes in a network such that the page rank of a particular node can be increased, without impacting the relative page rank of other nodes in the network. This work can be applied in fighting fake news by ranking the more trustworthy websites higher in the network.
- Researched and simulated various traditional page rank algorithms and their variations such as Weighted Page rank based on the number of links or Weighted Page Rank based on the number of visits to the links, etc.

Summer Internship | Frappe Technologies Pvt. Ltd. - Mumbai   June 2017 - July 2017
- Transitioned UI testing for Frappe framework and ERPNext from manual to automated by developing UI testing suites and test scenarios in JavaScript, TestCafe, and Nightwatch. This brought down the manual error to 0% along with bringing consistency and guarantees.
- Contributed to the development of ERPNext Conference (2017) website built using Frappe framework in Python and JS.

Projects

2-Level cache simulator | Indian Institute of Technology, Roorkee   February 2022
- Created a 2-level cache simulator in C++ with support for PIPT cache, LRU replacement policy, and write-back operations.
- On the benchmark trace (by USIMM), it was able to achieve an L1 hit of 1.989% and an L2 hit of 33.055% which is just 7-8% shy of what current production-run caches offer, with the above project constraints.

Packet sniffer application | Indian Institute of Technology, Roorkee   September 2021
- Developed a network-based CLI program allowing us to sniff packets on the currently active network interface.
- Build in C++ using the pcap library, it allows us to capture packets from the desired source or destination IP and also to filter down on the packet type (TCP, UDP, or ICMP).

Park management website | Indian Institute of Technology, Roorkee   August 2021
- Created a web interface for managing a park in PHP and Javascript.
- Completed solution offered not only employee management features such as attendance, task allotment, performance reviews (employee of the month), it also allowed smoothing common processes in the park such as issuing entry tickets, current traffic in the park, etc.

Effective video piracy detection | National Institute of Technology, New Delhi   August 2018 - July 2019

- Designed and implemented a simple and efficient mechanism to detect re-captured video (camcorder piracy) by frequency domain analysis of noise present in the video frames.
- Working in a 3-member team, we applied different statistical measures mean, variance, kurtosis, etc. on the mean strip extracted using Visual Rhythm to achieve our results.
- Compared to the common current solutions available, we were able to predict this with 96% accuracy and 92.59% precision in almost all scenarios.

Awards / Scholarships / Academic Achievements

- Smart India Hackathon (2018) - Presented our college in the national finals held in Pune, India
- Reverse coding contest (2018) - Secured IInd position held in Terra Technica fest, NIT Delhi

Skills

Computer languages	C++, PHP, Python, Java, SQL, FIX protocol, and common web technologies
Software Packages	Git, Robot framework, Microsoft Visio, AWS services (EC2, RDS, S3, EBS, etc), Heroku, Visual Studio, Eclipse
Additional Courses	Soft skill fundamentals
Languages Known	English (SRW) and Hindi (SRW)

References

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