Akash Panda

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Summary

Results-driven software engineer with a Master's in Computer Science from IISc and 6.5+ years of experience in software development, performance analysis, and engineering. Proven expertise in designing and implementing scalable applications, debugging and troubleshooting, and leading cross-functional teams. Passionate about optimizing system performance and delivering innovative solutions for complex technical challenges. Eager to collaborate with diverse teams of engineers and researchers to explore and work on emerging technologies, transform ideas into impactful solutions, and help shape the future of computing.

Professional Experience

AMD India Pvt. Ltd.

Member of Technical Staff

Bengaluru, India April 2021 - present

- o Conduct performance analysis of micro-benchmarks and real-world workloads to identify bottlenecks, and propose solutions to achieve optimal performance improvements.
- o Identified and resolved critical performance bottlenecks in large-scale systems by analyzing real-world workloads and micro-benchmarks.
- Collaborated with cross-functional teams to implement proposals and enhance system performance.
- Developed internal tools that streamlined workflows to enhance team productivity.
- Published impactful research in internal conferences (GTAC 2024, AATC 2023, AATC 2024).

Info Edge (India) Ltd. (Naukri.com)

Noida, India

Lead Engineer

June 2015 - July 2018

- Spearheaded the development of Naukri's FirstNaukri platform, implementing scalable microservices and engineering best practices.
- o Guided a team of software developers to design and deliver robust solutions, improving system scalability and availability.
- Designed and deployed modules tailored to evolving product requirements.
- Proactively optimized server and application health, ensuring high availability and performance.

EDUCATION

Indian Institute of Science

Bengaluru, India

Master of Technology (Research) - Computer Science and Engineering; GPA: 8.3

July 2018 - April 2021

Thesis: NUMA-aware Memory De-duplication on Multi-socket Servers

Relevant Coursework: Computer Architecture, Operating Systems

National Institute of Technology(NIT) Agartala

Agartala, India

Bachelor of Technology - Computer Science and Engineering; GPA: 8.66

July 2011 - May 2015

Relevant Coursework: Computer Organization, Operating Systems, Data Structures, Analysis Of Algorithms, Data Communication and $Networking,\ Database\ Systems$

TECHNICAL SKILLS

• Programming Languages: C, C++, Python, Bash, PHP, SQL

• Core Competencies: Performance Analysis, Software Development, Debugging, Troubleshooting, Team Leadership

Operating Systems, Computer Architecture, Performance Analysis • Areas of Expertise:

Publications

- nuKSM: NUMA-aware Memory De-duplication on Multi-socket Servers: Presented at 30th International Conference on Parallel Architectures and Compilation Techniques (PACT), September 2021
- GTAC 2024: Published 2 papers at AMD Global Technical Authors Conference (GTAC) 2024.
- AATC 2022 & 2023: Published 1 paper each at AMD Asia Technical Conference (AATC) in 2022 and 2023.

KEY PROJECTS

- nuKSM: NUMA-aware Memory De-duplication on Multi-socket Servers (M.Tech. Research Thesis Project): Developed nuKSM to optimize memory deduplication and minimize NUMA-induced overheads, leading to improved system efficiency. Thesis Report
- Semantic Information of Deduplicated Pages: Built a tool to extract semantic information from deduplicated pages, enhancing memory optimization analysis. Report
- Prevalence of Page Splintering: Evaluated the impact of page splintering on system performance in virtualized environments. Report
- Heterogeneous Data Race Exhibiting Programs: Designed workloads showcasing heterogeneous data races for performance evaluation in hybrid systems. Report

EXTRACURRICULAR ACTIVITIES

- Current Player for AMD Corporate Cricket Team
- \bullet Served as Convener, IISc Cricket Club during 2019-2021.
- \bullet Served as Web Volunteer for IISc CSA Open Day 2019 and 2020.
- \bullet Represented NIT Agartala in Cricket at various events during 2011-2015.