Arjun Kashyap

CONTACT Information

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Website: https://arjun21k.github.io/

Research Interests My research interests broadly include Virtualization, Cloud Computing, and Storage.

EDUCATION Ohio State University, Columbus, OH, USA

Doctorate of Philosophy, Computer Science

Aug 2019 - Present

University of Wisconsin-Madison, Madison, WI, USA

Master of Science, Computer Science

Sep 2017 - May 2019

National Institute of Technology (NIT) Trichy, Trichy, India

Bachelor of Technology (Honors), Instrumentation & Control Engineering July 2010 - May 2014

RESEARCH EXPERIENCE

Graduate Researcher

Ohio State University (Adviser: Xiaoyi Lu)

- Disaggregated storage: Studied and characterized NVMe over Fabrics (NVMe-oF) over different network protocols using Intel SPDK.
- Persistent memory: Analyzed Intel Optane DC Persistent Memory Module (DCPMM) to generalize persistent memory characteristics through micro-benchmarks and performed case studies to guide the design of storage systems.

Professional Experience

Microsoft Corporation, Redmond, WA, USA

Software Engineer Intern - Azure Dedicated (Remote)

May 2020 - Jul 2020

Microsoft Research Lab, Cambridge, UK

Research Intern

June 2019 - Aug 2019

Microsoft Corporation, Redmond, WA, USA

Software Engineer Intern - Business Applications Group

May 2018 - Aug 2018

Oracle India Pvt Ltd, Hyderabad, India

Senior Software Developer (Full stack development)

June 2014 - Jul 2017

Papers and Conferences

- 1. **Arjun Kashyap**, Shashank Gugnani, and Xiaoyi Lu "Impact of Commodity Networks on Storage Disaggregation with NVMe-oF" (To appear in International Symposium on Benchmarking, Measuring and Optimizing (Bench'20))
- 2. Shashank Gugnani, **Arjun Kashyap**, and Xiaoyi Lu "Characterizing Persistent Memory" (Under review Title changed due to double-blind submission policy)

PROJECTS

Azure VMware datacenter monitoring

Microsoft Corp. (Mentor: Amit Chattopadhyay)

May 2020 - Jul 2020

Built an end-to-end pipeline to collect, analyze, and monitor VMware vCenter cluster metrics and host system logs for the software-defined data center running on Azure bare-metal nodes.

Augmenting the Visual Studio GateInsight tool

Microsoft Research - Cambridge (Mentor: Katja Kevic & Brendan Murphy) Jun 2019 - Aug 2019 Worked on the GateInsight tool in Microsoft Visual Studio which provides insight to developers about the feature toggles in the Office source code. The tool uses information collected from an analysis framework that finds all the feature toggles.

Study of Request-Routing in Content Delivery Networks

UW-Madison (Course: Adv. Computer Networks, with Prof. Paul Barford) Sep 2018 - Dec 2018 Performed a study of request-routing algorithms and mechanisms in CDNs, subject to varied network conditions. Discovered whether the request routing algorithms of a CDN actually determines the best edge server with respect to client perceived latency. [Code] [Report]

Coordination server for SAFER Home

UW-Madison (Adviser: Prof. Suman Banerjee)

Jan 2018 - May 2018

As a member of the Safer Home priect, designed a server in ParaDrop, an edge computing platform, which coordinates messaging and video streaming during normal and emergency situations. The project was selected for application development award in US Ignite. [Link]

SOFTWARE SKILLS

Programming Languages - C, C#, C++, Java, Javascript, Python, SQL, TypeScript, MATLAB Servers & Web containers - Weblogic, Tomcat

Web Technologies - HTML, CSS, NodeJS, Bootstrap, React, JQuery, RequireJS, Knockout Databases - Oracle, MySQL

Teaching EXPERIENCE

Department of Computer Science & Engineering, OSU

•	Grad Teaching Assistant,	CSE 1222: Intro to C++	Aug 2020 - Dec 2020
•	Grad Teaching Assistant,	CSE 2331: Data Structures & Algorithms	Aug 2019 - May 2020

Department of Computer Science, UW-Madison

• Service-learning, CS 402: Introducing CS to K-12 students	Jan 2019 - May 2019
• Project Assistant, CS 639: Introduction to Software Security	Jan 2019 - May 2019
• Project Assistant, CS 537: Introduction to Operating Systems	Sep 2018 - Dec 2018
• Project Assistant, CS 640: Introduction to Computer Networks	Jan 2018 - May 2018

Honours and ACHIEVEMENTS

Awarded student travel grant for 2020 ACM/IEEE Supercomputing Conference (SC).

Application development award from US Ignite for SAFER Home project.

Conferral of the First Class with Distinction for Bachelors of Technology degree in NIT Trichy, 2014 (Requires a CGPA above 8.5 out of 10).

Granted academic proficiency prizes at NIT Trichy in 2012 and 2013 for being among the top 3 students in the department.

Achieved a rank 2/96 in Instrumentation & Control Engineering department in NIT Trichy.

ACTIVITIES

EXTRACURRICULAR Secondary reviewer for Euro-Par'20, IEEE TPDS'20, BPOD'20, HPCS'20, and HiPC'20

Runner up in Table-Tennis in Annual Sports & Games 2011-2012 at NIT Trichy.

Manager of Pragyan Workshops team from 2012-2013 which organizes and conducts technical workshops for college students.