Sid Agrawal

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RESEARCH INTERESTS

Operating Systems

EDUCATION

University of British Columbia, Canada **2021 - present**
- Ph.D. in Computer Science

University of Florida, USA **2010 - 2011**
- Masters in Computer Engineering

BITS Pilani, Goa Campus, India **2005 - 2009**
- Bachelors in Electrical and Electronics Engineering
  8.09/10.00

CONTINUING EDUCATION

University of California, Santa Cruz, CA, USA **2012 - 2013**
- Non-degree coursework: Linux Kernel Architecture and Programming

Stanford University, CA, USA **Jan - Apr 2014**
- Non-degree coursework: Operating Systems - CS 140

RESEARCH EXPERIENCE

Research Assistant, Systopia, University of British Columbia, Canada **2021 - present**
Advisor: Dr. Margo Seltzer
- Investigating the common building blocks for different isolation mechanisms like processes, containers, virtual machines. Implement a mechanism that lets the user select the desired level of isolation for a given resource without depending on the mechanisms.

PROFESSIONAL EXPERIENCE

Software Engineer, Arista Networks, Canada **Sep 2016 - Present**
- Co-developed services to store build artifacts generated in the build process
- Co-Developed a glue layer in GoLang for a NoSQL backend for a distributed build system
- Independently developed services to detect and automatically triage faulty testbeds

Software Engineer, Panzura, CA, USA **Apr 2015 - Aug 2016**
- Independently designed and implemented support to transactionally update file metadata for Panzura's Global Distributed File System. This heavily simplified recovery after crashes.

Engineer, Solaris, and SPARC, Oracle, CA, USA **Mar 2012 - Apr 2015**
Kernel Engineer:
- Enhanced the virtual memory predictor in Solaris by developing an algorithm to determine

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which segments in the address space can be upgraded to large pages
- Improved performance of multiple system calls by making their O() page size independent

Hardware Engineer:
- Developed C and assembly level kernels to stress test cache interconnects and database co-processor of the SPARC microprocessor

SKILLS
- Languages: C, Go, Assembly
- File systems, operating systems(seL4, Linux)
- Orchestration: Docker, Kubernetes

HONORS AND AWARDS
- President's Academic Excellence Initiative Ph.D. Award, University of British Columbia. 2021
- Faculty of Science Ph.D. Tuition Award, University of British Columbia. 2021
- Achievement Award, College of Engineering, University of Florida, US. 2010-2011
- Need-based merit scholarship, BITS Pilani, India. 2005-2009

REFEREES
- Dr. Margo Seltzer, Professor of CS, University of British Columbia, Canada
- Dr. Sasha Fedorova, Associate Professor of ECE, University of British Columbia, Canada
- Dr. Amalin Prince, Associate Professor of EE, BITS Pilani Goa, India
- Eric Ellenof, Director of Software Engineering, Arista Networks, US