

## NIKHIL P SAMBHUS

Toronto, Canada

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## EDUCATION

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MASc (thesis) in Computer Engineering  
University of Toronto, Canada (Advisor - Prof. Ashvin Goel)

(September 2018 onward)

B-Tech in Computer Engineering  
College of Engineering, Pune (COEP), Pune, India

(July 2011 to June 2015)

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## ACADEMIC EXPERIENCE

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Leveraging determinism and NVM in main memory databases to reduce DRAM footprint (at University of Toronto) (May 2019 onward)

- Goal is to reduce DRAM footprint of Felis (in house database) by leveraging cheaper but slower Non volatile memory (NVM) storage and deterministic execution to provide lower operating costs
- Studied performance and DRAM usage by placing different data objects on Intel's 3D Xpoint NVM to understand bottlenecks
- Preliminary implementation and evaluation of ideas such as buffering in DRAM and write back during garbage collection on NVM

TA Operating Systems ECE 344 (at University of Toronto)

(Fall 2018)

- Assisted students in lab assignments
- Marked Midterm and final exam papers

Analyzing the Fragmented Log-Structured Merge data structure (remote internship@UT Austin)

(October 2017 to November 2017)

- Performed theoretical analysis of a recent novel data structure called Fragmented Log- Structured Merge (FLSM).
- Explored effect of different configurable parameters such as guard size, number of *sstables* per level, size of levels on the read and write performance in FLSM based key-value store.
- Compared FLSM with other data-structures such as Log Structure Merge (LSM), Be-Tree and B-Tree.