Sharath Chandrashekhara

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Summary

Computer Science Ph.D. Candidate with close to 4 years of industrial experience in software research & development. My research interests are *Mobile Systems*, *Cloud Storage* and *Flash-based Storage*.

Education

Ph.D.   **Aug '14 – Present**

I am a 3rd year Ph.D. student in the Department of Computer Science and Engineering, University at Buffalo, advised by Dr. Steven Ko. My current focus is on developing personalized storage on mobile platforms.

Master of Science   **Aug '12 – Sept '14**

I graduated from the Department of Computer Science and Engineering, University at Buffalo, with a specialization in *Systems*. I was advised by Dr. Steven Ko and Dr. Vipin Choudhary in my Masters project.

Bachelor of Engineering   **Oct '05 – July '09**

I graduated from Sri Jayachamarajendra College of Engineering (SJCE), Mysore, India, under the Visvesvaraya Technological University (VTU) securing a First Class with Distinction.

Research Projects and Publications

- **BlueMountain** is a framework for flexible and personalized storage on mobile systems giving users higher control over their data. It is in active development and our preliminary work has been published in HotStorage 2015.
  "Enabling automated, rich, and versatile data management for android apps with BlueMountain.Chandrashekhara, S., Marcus, K., Subramanya, R. G., Karve, H. S., Dantu, K., & Ko, S. Y., 7th USENIX Workshop on Hot Topics in Storage and File Systems 2015."

- **Cider** is an erasure coded distributed block data store which I have developed with Dr. Vipin Choudhary, to provide high flexibility in controlling data redundancy. We are working on extending this project to create a flexible flash based data archival system.
  Patent Pending, WO2015161140A1

- **Pixelsior** is a photo management framework which can manage the photos on a device and can transparently manage content adaptation and image manipulation. Our initial work which was published in HotStorage 2016.
  "Pixelsior: Photo Management as a Platform Service for Mobile Apps Jeon, K., Chandrashekhara, S., Dantu, K., & Ko, S. Y., 8th USENIX Workshop on Hot Topics in Storage and File Systems, 2016"

- **PigOut** is a system that enables federated data processing over multiple Hadoop clusters. The work was published in IEEE Big Data conference.

"Pigout: Making multiple hadoop clusters work together. In Big Data, 2014 IEEE International Conference. Jeon, K., Chandrashekhara, S., Shen, F., Mehra, S., Kennedy, O., & Ko, S. Y."

Teaching Experience

I have given guest lectures in grad level courses and have served as a teaching assistant for 5 terms.

- **Operating Systems:** Offered as CSE 421/521 by Dr. Tevfik Kosar — Fall 2014 and 2015

- **Distributed Systems:** Offered as CSE 486/586 by Dr. Steve Ko — Spring 2015, 2016 and 2017.

Professional Experience

SDE Summer Intern at Amazon Inc., Seattle   **Summer '13, '14, '15**
I worked in the database engines team in the Amazon Web Services group and developed system modules for low-level database backup and restore, data compression and encryption in Amazon Redshift — Amazon's data warehouse service on the cloud.

Software Developer at NetApp Inc., Bangalore   **July '11 – July '12**
I worked on 'Data-Ontap' — NetApp's FreeBSD based operating system, for Enterprise Storage Controllers; on technologies like SCSI, Storage Area Networks (SAN), Network Attached Storage (NAS), RAID, Clustered Storage etc., with an exposure to development in the **Kernel Space and the Storage Stack**.

Software Engineer at NDS Ltd. (now a part of Cisco), Bangalore   **July '09 – July '11**
I worked on *Digital TV Set Top Box* Middleware and related technologies like DVB/MPEG; in roles of Middleware debugging, device driver development and full stack integration. I also spent a brief stint working in the NDS R&D Labs of Paris, France.

Other Information

- I am a homebrewer; a GNU/Linux and programming enthusiast.

- Visa Status: F1-Student Visa, Citizenship: India. For further information on my research, references, please see my homepage or contact me.

January 15, 2017