Ankur Sharma

Personal Data

PLACE AND DATE OF BIRTH: Allahabad, India | 25 March 1991

Address: Austr. 38a, 66386 Sankt Ingbert, Saarland, Germany

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WORK EXPERIENCE

APR 2016 - CURRENT | Research Assistant at Saarland University, Saarbruecken

Big Data Analytics Group

Working on utilizing main-memory and algorithmic optimizations to improve transaction processing in Relational Databases and Permissioned-Blockchain Systems.

SEP 2013 - Oct 2014 | Student Research Assistant at TU Dresden, Germany

Centre for Information Services and High Performance Computing Performed performance analysis and optimization of high parallel HPC applications.

May - July 2013 | Summer Research Intern at TU Dresden, Germany

Centre for Information Services and High Performance Computing Analyzed performance bottlenecks of Inchworm sequence assembler, and suggested

possible optimizations and parallelization of assembly algorithm.

May - July 2012 | Summer Research Intern at IIT Bombay, India

Designed and developed a user-friendly tool for editing XML files on android devices.

EDUCATION

APR 2016 - CURRENT Ph.D. in COMPUTER SCIENCE, Saarland University, Saarbruecken

Big Data Analytics Group

Advisor Prof. Dr. Jens Dittrich

OCT 2014 - APR 2016 Ph.D. (Preparatory Phase) in Saarland University, Saarbruecken

Saarbruecken Graduate School of Computer Science Cummulative GPA: 1.8 (Scale: 1.0 - 5.0, Best GPA: 1.0)

Oct 2013 - Sep 2014 Exchange Student at TU Dresden, Germany

Aug 2010 - Sep 2014 Bachelor of Technology at National Institute of Technology, Sikkim

Thesis Performance Tuning and Parallelization of Inchworm Sequence Assembler

Advisor Prof. Dr. Wolfgang Nagel (TU Dresden)

Cummulative GPA: 9.15/10.0 (Scale: 1.0 - 10.0, Best GPA: 10.0)

Scholarships and Awards

OCT 2014 - MAR 2016 Graduate School Scholarship, Saarland University

SEP 2014 Institute's Gold Medal, NIT Sikkim

SEP 2014 Computer Science Department's Gold Medal, NIT Sikkim

May - July 2013 DAAD WISE Fellowship

May - July 2012 Summer Research Fellowship, IIT Bombay, India

PATENTS AND GRANTS

PATENT "Secure and Transparent Cross-organization Data Sharing via Permissioned

Blockchain Technology." (Filed provisionally by the Saarland University)

Grant $\,$ 850,000 Euros for 1 year under the "StartUpSecure" program of the BMBF

for commercializing the ChainifyDB project.

PUBLICATIONS

- [1] Felix Martin Schuhknecht, Ankur Sharma, Jens Dittrich, and Divya Agrawal. Chainifydb: How to blockchainify any data management system. arXiv preprint arXiv:1912.04820, 2019.
- [2] Ankur Sharma, Felix Martin Schuhknecht, Divya Agrawal, and Jens Dittrich. Blurring the lines between blockchains and database systems: the case of hyperledger fabric. In SIGMOD Conference 2019, Amsterdam, The Netherlands, June 30 July 5, 2019., pages 105–122, 2019.
- [3] Ankur Sharma, Felix Martin Schuhknecht, Divya Agrawal, and Jens Dittrich. How to databasify a blockchain: the case of hyperledger fabric. arXiv preprint arXiv:1810.13177, 2018.
- [4] Ankur Sharma, Felix Martin Schuhknecht, and Jens Dittrich. Accelerating analytical processing in MVCC using fine-granular high-frequency virtual snapshotting. In SIGMOD Conference 2018, Houston, TX, USA, June 10-15, 2018, pages 245–258, 2018.
- [5] Ankur Sharma, Felix Martin Schuhknecht, and Jens Dittrich. Accelerating analytical processing in mvcc using fine-granular high-frequency virtual snapshotting. arXiv preprint arXiv:1709.04284, 2017.
- [6] Ankur Sharma, Felix Martin Schuhknecht, and Jens Dittrich. The case for automatic database administration using deep reinforcement learning. *CoRR*, abs/1801.05643, 2018.
- [7] Felix Martin Schuhknecht, Jens Dittrich, and Ankur Sharma. RUMA has it: Rewired user-space memory access is possible! *PVLDB*, 9(10):768–779, 2016.

LANGUAGES

HINDI Mother-tongue

English Fluent

GERMAN Basic Knowledge

Programming Skills

Languages 5000+ LOC: Go, C++, JAVA

1000+ LOC: C, JAVASCRIPT, PYTHON, BASH

Familiar Technologies GIT, SVN, SPARK, FLINK, KAFKA

Professional Activities

External Reviewer VLDB' 16, SIGMOD' 17, CIKM' 17, VLDB' 17 (Demo), VLDB' 18 SIGMOD' 18, CIKM' 18, BTW' 19

TEACHING

Winter Semester 2019/2020	Teaching Assistant (Database Systems Seminar and Pro-Seminar)
Summer Semester 2019	Teaching Assistant (Database Systems Seminar)
Winter Semester 2018/2019	Chief Teaching Assistant (Database Systems Core Lecture)
Summer Semester 2018	Teaching Assistant (Database Systems Seminar)
Winter Semester 2017/2018	Teaching Assistant (Database Systems Core Lecture)
Summer Semester 2017	Chief Teaching Assistant (Database Systems Seminar)
Winter Semester 2016/2017	Chief Teaching Assistant (Database Systems Core Lecture)