

Deepthi Akkoorath

Software Engineer & Researcher

Distributed systems engineer with key focus on scalability and performance. Has built a highly available geo-replicated data store. Has collaborated with distributed teams and open source projects.



Education

PhD in Computer Science Expected Sep 2018
Technical University of Kaiserslautern, Germany.

MSc. in Computer Science Sep 2010 - Aug 2012
University of Amsterdam, The Netherlands.
Thesis: Improving Quality of Experience of Internet Applications by Dynamic Placement of Application Components.

BTech. in Computer Science and Engineering Aug 2005 - Jul 2009
Amrita Vishwavidyapeetham, Amritapuri, India.

Experience

Research Assistant Feb 2014-Now
Technical University of Kaiserslautern, Germany.

Research on scalable synchronization-free protocols for large-scale distributed systems and multi-core concurrent programs.

- Co-developed AntidoteDB, **a scalable and highly available geo-replicated database**. AntidoteDB is now used by our academic and industrial research partners.
- Co-designed Cure, the decentralized algorithm implemented in AntidoteDB that provides causal consistency and highly available transactions in a geo-replicated systems with large number of servers.
- Developed techniques for scalable concurrent objects for fast multi-threaded programs.
- Mentored several master thesis, student seminars and projects.
- Gave talks, tutorials and demos and guided new developers on AntidoteDB.

Software Engineer Feb 2013 – Dec 2013
Multicoreware. Inc, Chennai, India.

Development of X265, an open source, high performance video encoder.

- Improved encoding speed by parallelizing key computations.
- Implemented features that encode videos with tunable bitrate and encoding speed.

Research Intern Jan 2012 – Jun 2012
TNO, Delft, The Netherlands.

Research on dynamic content and application delivery over distributed cloud infrastructures.

- Developed a new model to optimize the placement of application components on distributed clouds to improve the Quality of Experience of Internet Applications.

Software Development Intern Jul 2011 - Aug 2011
NIKHEF, Amsterdam, The Netherlands.

- Built a web portal that enables users to single sign-on using their existing institution account to access grid computing resources easily.

Personal Info

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Areas

Distributed Systems
Parallel Computing
Databases

Coding

Erlang ■■■■■
Java, C, C++ ■■■■■
Haskell ■■□□□

Languages

English (fluent) ■■■■■
Malayalam (native) ■■■■■
German (B1) ■■■□□