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.

Personal Info

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github.com/deepthidevaki
in/deepthidevaki

Areas

Distributed Systems
Parallel Computing
Databases

Coding

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

Languages

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

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
Technical University of Kaiserslautern, Germany. — Feb 2014-Now

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
Multicoreware. Inc, Chennai, India. — Feb 2013 – Dec 2013

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
TNO, Delft, The Netherlands. — Jan 2012 – Jun 2012

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
NIKHEF, Amsterdam, The Netherlands. — Jul 2011 - Aug 2011

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