

# 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) ■■■□□