

Mihir P Mehta

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Areas of interest Formal verification, programming languages, operating systems.

Education **Ph.D. in Computer Science**, University of Texas at Austin. (2014 - present)
GPA: 3.83/4 (Spring 2015)
B.Tech. in Computer Science and Engineering (CSE), Indian Institute of Technology (IIT) Delhi. (2009 - 2013)
GPA: 7.9/10
Exchange semester, Ecole des Mines, Saint-Etienne. (2011)

Experience **Research Assistant**, With Professors Isil Dillig and Thomas Dillig, CS department, UT Austin. (2014-2015)

- Worked on program verification in object-oriented languages.
- Coded up a prototype verifier based on Hoare logic and weakest pre-conditions using the Soot compiler framework for Java.

Software Engineer, Samsung Research Institute, Noida, India. (2013-2014)

- Worked as a researcher in Samsung's Systems Core Group.
- Primarily tasked with optimising the Linux kernel for Samsung's Android devices.
- Improved core components of the Linux virtual memory subsystem.

Undergraduate Thesis **Algorithms for prebisimilarity** With Professor S Arun Kumar, CSE Department, IIT Delhi (2012-2013)

- Conceptualised and implemented a toolkit for verifying bisimilarity and other properties of timed automata and labelled transition systems.
- Leveraged UPPAAL model checker to add support for difference bound matrices.
- Improved an algorithm for generating a zone graph from a timed automaton.

Coursework **UT Austin**

- CS395T Automated Logical Reasoning (Spring 2015)
- CS388L Introduction to Mathematical Logic (Spring 2015)
- CS388S Formal Verification and Semantics (Fall 2014)
- CS395T Automatic Verification of Software (Fall 2014)

IIT Delhi (graduate courses only)

- CSL728 Compiler Design (Fall 2012)
- CSL705 Theory of Computation (Spring 2012)
- MAL704 Numerical Optimisation (Spring 2012)

Scholastic Achievements

- Awarded the UT Austin Graduate School's College Recruitment Fellowship. (2014-2017)
- Secured All India Rank 138 in the Joint Entrance Examination (IIT-JEE) among 400000 candidates. (2009)
- Secured All India Rank 29 in the All India Engineering Entrance Examination (AIEEE) among 1000000 candidates. (2009)

- Scored 99 percentile in Verbal and Analytical Reasoning, GRE. (2012)

Technical Skills

Programming languages: Functional languages (OCaml, SML), logic programming languages (Prolog), hardware description languages (VHDL).
Operating systems: GNU/Linux (application development and kernel development).
Compiler frameworks: Soot (Java), LLVM (C++).
Others: Xilinx, Matlab, PostgreSQL.

Others

Languages: English, French, Gujarati, Hindi.
Outside of work: I enjoy reading, blogging, swimming, strength training, and playing my guitar.