# Suyash Gupta

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## EDUCATION

**University of California Davis** — Davis, CA
Doctor of Philosophy — Jan 2018 – present
(Transfer from Purdue)

**Purdue University** — West Lafayette, IN
Master of Science — Aug 2015 – Dec 2017
GPA: 3.83/4.00

**Indian Institute of Technology Madras** — Chennai, India
Master of Science (Research) — Jan 2012 – May 2015
GPA: 8.57/10.00

**GGSIP University** — New Delhi, India
Bachelor of Technology — Aug 2007 – May 2011
GPA: 82.15/100

## WORK EXPERIENCE

- **Research Assistant, University of California, Davis** Jan 2018 – present
  - Project – Efficient Agreement Protocols
    - Design of two-phase non-blocking atomic commitment protocol.
    - Design of topology-aware commitment protocol for geographically distant nodes.
  - Project – Efficient Consensus Protocols
    - Design of two-phase byzantine fault-tolerant consensus protocol.
    - Design of parallel and wait-free byzantine fault-tolerant consensus protocol.
- **Teaching Assistant, Purdue University** Aug 2017 – Dec 2017
- **Research Assistant, Purdue University** Aug 2015 – Aug 2017
  - Project – Probabilistic Test Data Generation
    - Design of probabilistic test data generators that sample test inputs from various distributions such as Uniform, Binomial and Gaussian.
    - Extension of probabilistic test data generators implementation to recursive types such as lists and trees.
  - Project – Programming paradigms for distributed databases
    - Development of a DSL in Ruby on Rails that implements users view of consistency.
    - Implementation of a parser in Haskell that parses database SQL queries.
- **Intern, IBM India Research lab, New Delhi** Feb 2015 – Apr 2015
  - Project – Multithreaded Analysis of Java Programs
    - Study of a novel parallel escape analysis and pointer analysis algorithm.
    - Testing of a novel Java decompilation strategy.
    - Analysis of a novel Slicing algorithm.
- **Project Associate, IIT Madras** Jan 2014 – Dec 2014
  - Project – Optimizing parallel programs for multicore systems.
    - Design of two novel task parallel optimizations for reduction of task creation and task termination operations.
    - Implementation of the two novel optimizations in X10 compiler.
    - Analyzing the impact of proposed optimizations on the energy consumption.
- **Teaching Assistant, IIT Madras** Jan 2012 — Dec 2013
- **Project Associate, IIT Madras** Jun 2010 – July 2010

# PUBLICATIONS

- S. Gupta and M. Sadoghi, Efficient and non-blocking agreement protocols, Distributed and Parallel Databases, 2019. Core Australia Journal Ranking – A.
- S. Gupta and M. Sadoghi, Blockchain Transaction Processing, Encyclopedia of Big Data Technologies, 2019.
- S. Gupta and M. Sadoghi, EasyCommit: A Non-blocking Two-phase Commit Protocol, International Conference on Extending Database Technology (EDBT) 2018. Core Australia Conference Ranking – A.
- S. Gupta, R. Shrivastava and V. Krishna Nandivada, Optimizing recursive task parallel programs, International Conference of Supercomputing (ICS), 2017. Ranked among top 3 conferences by csrankings.org.
- S. Gupta and V. Krishna Nandivada, IMSuite: A benchmark suite for simulating distributed algorithms, Journal of Parallel and Distributed Computing (JPDC), 75 (2015). Core Australia Journal Ranking- A*.

# AWARDS & HONORS

- Scholarship to attend VMW/CAV 2017 at Heidelberg, Germany, 23 – 28 July 2017.
- Travel grant to present work at ICS 2017 at Chicago, IL, 14 – 16th June 2017.
- Attended OPLSS'16 at Eugene, OR, 19th June 2016 – 2nd July 2016.
- Best Use of Data Visualization, Best Mobile App, Most Launchable product sponsored by Dorm Room Fund and PrincetonPy/PICSciE Prize at HackPrinceton 2016.
- First Prize at HackIllinois 2016 (Best Software Hack), and Best use of Microsoft Technology award – 19-21st February 2016.
- First at Purdue University and finalist entry to Windward Code Wars Spring 2016.
- Qualified for Semi-finals at Microsoft Imagine Cup Spring 2016.
- First Prize at Boston Hacks 2015 – 31st Oct – 1st Nov 2015.
- Scholarship to attend POPL/PLMW, at Munbai, India, 12 – 18 Jan 2015.
- Outstanding Teaching Assistant Award for courses: CS3310 (Aug 12), CS6848 (Jan 13).
- Scholarship from MHRD, Government of India, for qualifying All India Graduate Aptitude Test in Engineering (GATE) and securing admission at IIT Madras.
- 1st prize, Inter College project competition, 2011, organized by GGSIPU and Delhi Knowledge Development Foundation
- 2nd prize, Technical Paper Presentation, 2011, organized in association of Computer Society of India (CSI) at Jamia Millia Islamia.
- 2nd prize at C/C++ programming at Info Expression 2009.

# SEMINARS

- EasyCommit: A non-blocking two-phase commit protocol at EDBT'18, 29th March 2018.
- Optimizing recursive task parallel programs at ICS'17, 14th June 2017.
- IMSuite: A benchmark suite for simulating distributed algorithms at Purdue University, 15th September 2016.
- Analyzing Recursive Task Parallel Programs at Indian Institute of Technology Madras, 16th October 2014.

# SERVICES

- Web and Program Chair, Middleware 2019.
- External Reviewer, EDBT 2018.
- External Reviewer, Middleware 2018.