



Prashant Anantharaman

Curriculum Vitae

Education

- 2015–Present **Masters of Science in Computer Science**, *Dartmouth College*, Hanover, NH, USA.
- 2011–2015 **Bachelor of Engineering in Computer Science and Engineering**, *College of Engineering, Guindy*, Chennai, TN, India, *GPA – 8.19/10*.

Publications

- 2016 Prashant Anantharaman, Kartik Palani, David Nicol, Sean W. Smith: I am Joe's Fridge: Scalable Identity in the Internet of Things, *IEEE Internet of Things Conference, 16th–19th December, 2016, Chengdu, China*.
- 2016 Geethapriya R, Prashant Anantharaman and Saswati Mukherjee : Proactive Resource Provisioning Model for Cloud Federation, *ICDCIT 2016: International Conference on Distributed Computing and Internet Technology, 15th–18th January, 2016, Bhubaneswar, India*.
- 2015 Prashant Anantharaman, Lakshmi Narayan, Vinay Sreenivas : Code Compaction in LLVM IR, *Senior Thesis, Best thesis award by TCS*.

Research

- 2016 **Summer Internship**, SRI INTERNATIONAL, Menlo Park, CA.
Language Theoretic Security in IoT.
Advisors : Dr. Michael Locasto, Dr. Gabriela Ciocarlie, Dr. Ulf Lindqvist
- 2015 – **Research**, TRUST/PKI LAB, Dartmouth College, Hanover, NH.
- Current Working on addressing Crypto Scalability Issues in Smart Grid and the IoT.
Advisor : Dr. Sean W. Smith
- 2015 **Research**, CLOUD COMPUTING LAB, Dept. of Information Technology, Anna University, Chennai, India.
Proactive Resource Provisioning Model for Cloud Federation. We developed a simulation environment for cloud federation in ruby to investigate the impact of workload prediction based resource provisioning in cloud federation.
Advisor : Dr. Saswati Mukherjee

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2014 – 2015 **Senior Thesis**, COMPILERS LAB, Dept. of Computer Science and Engineering, Anna University, Chennai, India.
Code Compaction in LLVM IR: In this thesis, we discuss how code compaction can be performed on LLVM's Intermediate Representation. **TCS Best Project Award**.
Advisor : Dr. Arul Siromoney

Work Experience

- 2016 **Lead Developer**, DEPT. OF BIOINFORMATICS, Dartmouth College, Hanover, USA.
Lead the Engage Project at the Dept. of Bioinformatics for increasing community involvement in clinical trials.
- 2015 **Student Developer**, DIGITAL ARTS, LEADERSHIP, & INNOVATION LAB, Dartmouth College, Hanover, USA.
Working on the backend development for the startup - Vocate on Django and PostgreSQL.
- 2014 **Student Trainee**, SAMSUNG R&D INSTITUTE, Bangalore, India.
Worked on Graph Database based systems using Apache Giraph and Neo4J.

Teaching Experience

- 2016 **Teaching Assistant**, PROGRAMMING LANGUAGES, Dartmouth College.
Instructor: Sergey Bratus

Projects

- KeggyFuzzer Building smart fuzzers from parser combinator input. We build on the hammer parser combinator representation to build a top-down fuzzer generator.
- Kabali A ruby gem to inspect the YARV structures : Received a citation for this project. Ruby YARV structures and stacks aren't so easy to inspect and comprehend, this gem would give you a step by step description of the modifications in the stack.
- Sankalan A ruby gem to make mdb and dtrace interchangeably.
- Yalnix A simple operating system in C. : Implemented memory management and all syscalls as a part of the Operating Systems course.
- Foodroach A free food finding application for Dartmouth: Since Dartmouth has a lot of events every day, every meal providing free food, we decided to aggregate information from sources and post it using an android app. I developed the Web API <https://github.com/indiawaale> . Software(s) used: *Ruby on Rails, cronjobs*
- File Sharing Portal Developed a "Social Network for sharing of Files and Videos". The source code to which can be found on <https://github.com/ProjectAlex/laughing-adventure> . Software(s) used: *Ruby on Rails, mysql*
- Khelo A sports programming language: Developed an interpreter based language as a "Design of Compilers" project. Software(s) used - *Ruby(Lex and Yacc)*
- Tamil OCR This project was funded by "Centre for Technology Development and Transfer, Anna and Error University". Error corrections were made on an OCR'd document. We achieved an accuracy of almost 90%. Software(s) used: *Java, Ruby on Rails, Tesseract OCR*

Guindy Times Website Developed the website of the college news magazine. There is now a mobile application as well, for which the API was designed by me. <http://guindytimes.com>. Software(s) used: *Ruby on Rails, postgresql, Redis*

Kurukshetra : College Tech Fest Website Developed the website of the college tech fest. Developed the website and the API for the android application. <http://archive15.kurukshetra.org.in>. Software(s) used: *Ruby on Rails, mysql, angularjs*

Relevant Courses

Dartmouth

- Advanced Operating Systems
- Operating Systems
- Security and Privacy
- Artificial Intelligence
- Programming Languages

College of Engineering, Guindy

- Design and analysis of Algorithms
- Digital Design
- Electronic devices and circuits
- Electrical engineering and control systems
- Computer Architecture
- Microprocessors and Microcontrollers
- System software internals
- Computer Networks
- Theory of computation
- Cryptography and Network Security
- Compiler Design
- Database management systems
- Distributed systems
- Database Tuning
- Web Technologies
- Digital signal processing
- Mobile and pervasive computing
- Computer graphics and multimedia
- Discrete mathematics
- Linear algebra (Mathematics 3)
- Probability and queuing theory

Computer skills

Programming Languages RUBY, PYTHON, R, C++, C, BASH, JAVA, C#, HTML, CSS, JAVASCRIPT

Frameworks RUBY ON RAILS, DJANGO, LLVM, APACHE GIRAPH

Tools GIT, EMACS text editor, \LaTeX , OpenOffice

Databases MYSQL, POSTGRESQL, ORACLE

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Operating Systems GNU/LINUX(ARCHLINUX,UBUNTU,FEDORA),Windows(various)
GitHub Account <https://github.com/prashantbarca>

Other Experiences

- 2012–2015 Free Software Foundation Tamil Nadu : Activist and active member of the foundation, conducted several sessions and workshops.
- 2014–2015 Student Director at CEG Tech Forum : Served as Student Director of CEGs Tech Forum the student run body that organizes Kurukshetra, An International Techno-Management Fest under the patronage of UNESCO
- 2011–2013 Junior Correspondent at The Guindy Times : The Campus Magazine

Personal information

- Date of birth : October 11, 1993
- Hometown : Mumbai, India

Languages

Tamil	Mothertongue	
English	Advanced	
Hindi	Advanced	
Marathi	Basic	<i>Basic words and phrases only</i>
Malayalam	Basic	<i>Basic words and phrases only</i>

Interests

- Soccer
- Table Tennis
- Cooking
- Singing

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