

## Education

- 2016 **Ph.D.**, *Computer Science*, Oregon State University.  
Graduation expected on May 2016
- 2010 **M.S.**, *Computer Science*, Illinois Institute of Technology.
- 2000 **B.Tech.**, *Civil Engg*, Kerala University, India.

## Publications

- ISSRE'15 **How hard does mutation analysis have to be, anyway?**, Gopinath, Alipour, Ahmed, Jensen, Groce.
- ESEM'15 **An Empirical Study of Design Degradation: How Software Projects Get Worse Over Time**, Ahmed, Mannan, Gopinath, Jensen.
- ISSRE'14 **Mutations: How close are they to real faults?**, Gopinath, Jensen, Groce.
- Onward'14 **Coverage and Its Discontents**, Groce, Alipour, Gopinath.
- ISSTA'14 **MuCheck: An Extensible Tool for Mutation Testing of Haskell Programs**, Le, Alipour, Gopinath, Groce.
- ICSE'14 **Code Coverage for Suite Evaluation by Developers**, Gopinath, Jensen, Groce.
- FASE'12 **Explanations for regular expressions**, Erwig, Gopinath.

## Experience

- 2014,7..9 **Intern**, *Puppetlabs*, U.S.A.  
- Contributed Solaris 10 and 11 support for Native Factor bringing parity with the Ruby Factor.  
- Implemented a common build environment for Solaris, Windows, and FreeBSD Native Factor, build toolchain and its dependencies.
- 2013,7..9 **Intern**, *Puppetlabs*, U.S.A.  
- Investigated different solutions for Postgresql streaming replication and failover, and developed initial puppet module for Postgresql clustering.
- 2012,7..9 **Intern**, *Puppetlabs*, U.S.A.  
- Developed release tasks for Solaris 11 packages for Puppet, Factor and Hiera  
- Handled preliminary release of Solaris 11 IPS Package for Puppet 3.0.0  
- Fixed Solaris specific problems in Puppet 3.x and ensured that it worked correctly for this release.  
- Worked with Q.A and Ops to enable Solaris infrastructure in Puppet Labs
- 2004–2010 **Member of Technical Staff**, *Sun Microsystems*, India.  
- Integrated various Apache modules and Squid cache for OpenSolaris.  
- Built framework which enabled non-root, relocatable installations of open source components and developed common service functions library for Sun Web Stack.  
- Worked in web server clustering with session-failover capability and reverse proxy, implemented TCL shell scripting for administration.  
- Contributed implementation of FTP, (SSL) CONNECT and SOCKS protocols for proxy server.  
- Contributed to caching subsystem including cache manipulation tools, cache eviction, and implementations of ICP and CARP cache coordination protocols.
- 2002–2004 **Member of Technical Staff**, *Quark Media House*, Chandigarh.  
- Worked in load-balancer and cache implementation for Quark Document Server farms.  
- Worked in Simple messaging and XSLT presentation layer for Quark Web Server.

2000–2002 **Developer, Research Group**, *SunTec Business Solutions*, Thiruvananthapuram.

- Implemented rating and billing engine for telephony call records, SOAP Service API for the billing interface, Provided domain sensitive caching and transaction control in the client for billing engine.
- Prototype OS-KIT based standalone kernel that could be used as a rating appliance.

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## Open Source Contributions

- Co-Author of [MuCheck](#) Haskell mutation analysis tool, and a [few others at Hackage](#).
- Author of [XMutant](#) Python mutation analysis tool.
- Contributed multiple static analysis checkers (cops) for [Rubocop](#) - Static analysis framework for Ruby.
- Contributed multiple bytecode mutators for [Pitest](#) - mutation analysis for Java.
- Contributed Bugfixes, and features to Apache HTTPD ([core](#), [mode-proxy](#) and [mod-scheme](#) modules).
- Github ID: [vrthra](#)
- Stack Exchange: <http://codereview.stackexchange.com/users/12593/rahul>