

CONTACT INFORMATION	Department of Computer Science 1111 Engineering Dr, Boulder, CO 80309, USA	EMAIL: monal.narasimhamurthy@colorado.edu WEBSITE: http://monal.github.io/
RESEARCH INTERESTS	Programming Languages, Formal Verification	
EDUCATION	University of Colorado Boulder , Boulder, Colorado, USA Ph.D. Student, Computer Science, since Fall 2016 <ul style="list-style-type: none"> • Advisor (since Fall 2019): Prof. Sriram Sankaranarayanan • Previously advised by Prof. Matthew Hammer University of Colorado Boulder , Boulder, Colorado, USA M.S., Computer Science, May, 2017 Birla Institute of Technology and Science, Pilani , Goa, India B.E.(Hons.), Computer Science, August, 2014	GPA - 3.97/4.0 GPA - 3.97/4.0 GPA - 7.44/10
GRADUATE COURSEWORK	Fundamental concepts of programming languages, Probabilistic programming languages, Advanced techniques for incremental computation, Machine learning, Big data architecture, Geo-spatial data analysis, Design and analysis of algorithms, Theory of computation, User-centered design, Database systems, Hybrid systems	
PROFESSIONAL EXPERIENCE	Microsoft Research Lab , Cambridge, United Kingdom <i>Research intern, advised by Simon Peyton Jones and Andy Gordon</i> Worked with the Excel online team. Microsoft Research Lab , Bangalore, India <i>Research intern, advised by Aseem Rastogi</i> Implemented a separation logic library for F*, a verification oriented language. Amazon , Seattle, Washington, USA <i>SDE Intern</i> Built a serverless architecture framework for internal roadmap and sprint planning. DirectI , Mumbai, India <i>Developer Operations</i> Developed automation tools and deployed infrastructure for contextual web advertisement platforms. Apigee , Bangalore, India <i>Software Developer Intern</i> Worked with the Diagnostics team to reduce the customer support ticket resolution time. Built a cloud infrastructure monitoring tool for the DevOps team and contributed to the testing framework.	June 2018 - Sep 2018 June 2017 - Jan 2018 May 2016 - Aug 2016 July 2014 - July 2015 Jan 2014 - June 2014
RESEARCH	CU Programming Languages and Verification Lab , Boulder, Colorado, USA <i>Research Assistant</i> <ul style="list-style-type: none"> • Worked on extending Adapton, a general-purpose language-based abstraction for incremental computation • Working on verification of neural network models 	since Aug 2016

PAPERS AND DRAFTS	Fungi: Typed incremental computation with names Matthew A. Hammer, Kyle Headley, Joshua Dunfield, Monal Narasimhamurthy, Dimitrios J. Economou. (In submission, arXiv:1610.00097 [cs.PL])	
	Meta-F*: Proof automation with SMT, Tactics, and Metaprograms Guido Martínez, Danel Ahman, Victor Dumitrescu, Nick Giannarakis, Chris Hawblitzel, Cătălin Hrițcu, Monal Narasimhamurthy, Zoe Paraskevopoulou, Clément Pit-Claudel, Jonathan Protzenko, Tahina Ramananandro, Aseem Rastogi, Nikhil Swamy. To appear in 28th European Symposium on Programming (ESOP), 2019	
	ML as a Tactic Language, Again Guido Martínez, Danel Ahman, Victor Dumitrescu, Nick Giannarakis, Chris Hawblitzel, Cătălin Hrițcu, Monal Narasimhamurthy, Zoe Paraskevopoulou, Clément Pit-Claudel, Jonathan Protzenko, Tahina Ramananandro, Aseem Rastogi, Nikhil Swamy. ML, 2018	
TEACHING	<i>Teaching Assistant</i> , University of Colorado Boulder	
	<ul style="list-style-type: none"> • CSCI 3155: Principles of Programming Languages, • CSCI 3308: Software Development Tools and Methods 	Fall 2019 Spring 2016
SKILLS	<ul style="list-style-type: none"> • Languages: Python, OCaml, Scala, Rust, FStar, R, Java, C • Web development: AngularJS, Django, Flask, JS, HTML, CSS • Data processing: Hadoop, Kafka, RabbitMQ, Storm, Spark, Elasticsearch • Data analysis: Tensorflow, Scikit-learn, GDAL, ArcGIS • Databases: MySQL, Redis, Cassandra • Tools: Amazon AWS Cloud, Jenkins, Travis CI, Git 	
LEADERSHIP	<i>Co-President</i> , Colorado Data Science Team	since Fall 2016
OUTREACH	GMR group , Bangalore, India	
	<i>Corporate social responsibility intern</i>	May 2012 - July 2012
	The organization works towards empowering underprivileged, uneducated youth by teaching them technical skills. Helped in designing the course curriculum and organizing a city-wide NGO meet to benefit the students.	
	Udaan , BITS Pilani, Goa, India	
	<i>Core member</i>	Aug 2012 - May 2014
	Worked towards empowering the housekeeping women on campus through basic education, social activities, awareness workshops and health-camps.	