
Harsha Lokavarapu**Education**

University of California, Davis	MS	Computational Geodynamics	2018
		Thesis Advisor: Professor Louise H. Kellogg	
University of California, Davis	BS	Computer Science	2015
	Minor	Applied Mathematics	2015

Employment**Software Engineer****Uber****2019-2020**

- Developed vInfra, a system to generate virtual infrastructure using an emulator
 - used to generate Uber’s on-prem backbone
 - used by network ops to investigate network failures
- Developed IRS, a go-lang command line tool to track inventory and reserve assets
 - designed Service Now database schema to store reservations
 - authored scripted endpoint in Service Now to handle REST API requests
 - developed and implemented Thrift and gRPC API for reserving assets
- Developed Metere, a repository for test case definitions and test case results
 - designed database schema using SQL
 - developed and implemented thrift API to create, read, update and delete test case definitions and results
 - developed front end application to interact with test case definitions and results repository using React and Base Web

Junior Assistant Programmer**Computational Infrastructure for Geodynamics****2014-2017**

- Contributed to open-source numerical library [ASPECT](#) written in C++
 - implemented parallel particle generation algorithms
 - implemented parallel particle interpolation algorithms including harmonic averaging and bilinear least squares
 - designed 2-D analytical solution to Stokes equations and benchmarked the accuracy of particle algorithms
- Contributed to open-source numerical library, [Calypso](#) written in Fortran 90.
 - implemented and optimized spherical harmonic transform using cutting-edge GPU hardware with CUDA in C++
 - executed strong and weak scaling tests to measure performance on supercomputer Maverick

Software Developer, Intern**Humana****2012**

- Wrote puppet manifests to install Humana application Healthdock’s software stack for clients
- Written Puppet manifests include Apache Web Server, Tomcat, Oracle, Avahi, Samba, Java, Apelon, and Healthdock

Skills: C++, CUDA, Git, Go, gRPC, Python, Unix
(familiar with): React, SQL