

Education

Employment

2019-Present

- 2019-2020

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- 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
- Data analysis and automation with python
 - created data pipelines for large data transfers from cluster to cluster
 - authored scripts to compute entropy as a function of time using particle positions
 - implemented carbon reservoir model with interactive widgets to help scientists analyze the influence of different initial parameter configurations on the evolution of carbon cycle

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

Coursera Certifications:

- Convolutional Neural Networks
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
- Neural Networks and Deep Learning

Skills: C++, CUDA, Distributed Services, Git, Go, gRPC, Python, Unix
(familiar with): keras, ipywidgets, numpy