Ryan Sudhakaran

Software Engineer

I'm a fast-learning enthusiastic engineer with a passion for physics and solving problems

CONTACT

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EXPERIENCE

QuDot — *Quantum Software Engineer*
Fremont, CA | Feb 2019 - Now

Utilized Python QC libraries (such as IBM Qiskit, Google Cirq and pyQuil) to generate randomized IQP circuits. Wrote an OpenQASM compiler for QuDot's bytecodes. Gained a deep understanding of current QC software simulation techniques

Unravel Data — *Data Engineer*
Palo Alto, CA | Jun 2017 - Nov 2018

Used data aggregation APIs from cluster metric services (Cloudera Manager, Ambari, MAPR) to prepare forecasting and organizational features. Implemented solutions within a Python RESTful API and scheduling platform (Celery + Flask) along with data retrieval/storage systems (POSTGRES + ElasticSearch)

Accupara — *Software Engineering Intern*
Mountain View, CA | Mar 2017- Jun 2017

Added functionality for SCons build tool into product, gained proficiency with Docker and Linux Systems. Utilized VMs and Docker images to carry out testing and employ distributed build solutions

NASA Ames Research Center — *Technical Intern*
Mountain View, CA | Jun 2016 - Aug 2016

Developed MPI experiments using a cluster of NVIDIA Jetson TK1 cards. Gained familiarity with NFS, parallel program structure, and the CUDA tool-kit. Currently creating a parallel compute cluster for deep learning using Caffe

HGST — *Data Science Intern*
San Jose, CA | Jun 2015 - Aug 2015

Designed and prototyped a multi-level PCA algorithm for detecting anomalies in large sets of time-series data corresponding to storage drives within a rack (**Patent #US20180032385A1**). The algorithm was implemented in R but later ported to Python

EDUCATION

San Jose State University — *BS. Physics w/ Mathematics Minor*
Fall 2012 - Spring 2017

SKILLS

Languages:

Python, R

Libraries:

Pandas, Selenium, Flask, Qiskit, Cirq

Other:

mySQL, POSTGRES, Cloudera Manager, Ambari Metrics, MAPR, ElasticSearch, Linux, Docker

PATENTS

"Storage Anomaly Detection" - HGST

Patent #: US20180032385A1