

Professional Summary

- 10 years of experience in Cloud Computing, Big Data, IoT, Data Science and Python
- Expertise and leadership in building communities around Data, Data Science, Deep Learning, Cloud, Big Data, Internet of Things, and Open Source
- Experience and proven ability in attracting and empowering the best people, fostering teams and learning culture around them
- Ability to drive innovation in data organizations through MeetUps, Hackathons, Rapid Prototyping, Real-time Analytics, A/B Testing and Agile practices

Skills

Expertise: Cloud Computing, Big Data, Data Science, Distributed Systems, REST APIs

Software: Python, C, C++, Java, Go, Julia, Bash, HTML, Linux and UNIX

Data Science: TensorFlow, Keras, Machine Learning, Recommender Systems, Neural Networks, Deep Learning, CNNs, LSTMs, Pandas, Scikit, Spacy, JupyterHub, Data Studio

Cloud Computing: Google Cloud, Amazon AWS, OpenStack, Kubernetes

Big Data: Spark, Hadoop, Hive, BigQuery, Dataflow, HBase, Bigtable, Redshift

Databases: NoSQL, Cassandra, MongoDB, DynamoDB, Redis, Neo4j, MySQL

DevOps: Docker, Ansible, Deployment Manager, CloudFormation, HEAT

Web Stack: Flask, Bottle, Twisted, Jinja, Django, Jinja

Messaging: Pub/Sub, Kafka, RabbitMQ, SQS, OpenStack Zaqar, Celery

Security: Bitcoin, Blockchain, Nmap, Kerberos, AD/LDAP, TLS/SSL

Agile: Agile, Kanban, Scrum, JIRA, CICD, DevOps

IoT: Atmel AVR, ARM, DSP, Flash, EEPROM, Sensors; I2C, SPI, USART & CAN Buses

Others: Hiring, High Availability, Scalability, Small Satellites, Git, Google Apps

Education

PhD in Big Data and Cloud Computing from University of Florida 2013

Dissertation: CubeSat Cloud, a framework for distributed storage, processing and communication of remote sensing data on CubeSat Satellite clusters

Masters in Electrical and Computer Engineering from University of Florida 2010

Bachelors in Information and Communication Technology from DA-IICT 2007

Experience

Expert Engineer at Nike June 2016 - Present

Worked on several several ML models including Product Recommender, Workout & Activity Recommender, Product Affinity Model for content personalization. Designed and built a POC of real-time personalization platform on Google Cloud. Built real-time streaming platform for capturing user activity using Kinesis Streams and Lambda on AWS. Part of 30x30 group, responsible for hiring talented engineers across Nike Digital.

Big Data Cloud Analytics Developer IV at Monsanto Aug 2015 - May 2016

Part of team that built image recognition engine using TensorFlow, Inception v3 and Cloud ML on Google Cloud. Was responsible for migrating genome analysis pipelines built on Kubernetes and HBase to Google Cloud. Architected the data pipeline that ingest billions of messages into Kafka and synchronizes in-house Oracle Exadata cluster with Postgres in AWS. Architected and built enterprise DataHub platform consisting of Spark and Hadoop on AWS.

Software Developer II at Rackspace Inc. Mar 2014 - Aug 2015
 Engineered OpenStack Poppy (CDN as a Service) and OpenStack Zaqr (Queuing system). Designed and developed solutions for log management, batch processing, real-time streaming and analytics using Spark, Hadoop, Pig Latin and Hive. Designed and built highly available and scalable web applications using Cassandra, MongoDB, Redis, Worker/Queue mechanisms.

Software Development Engineer at Amazon AWS May 2013 - Aug 2013
 Designed and developed transport mechanism for synchronizing database replicas. Implemented asynchronous APIs for record transportation based on C++ Boost and Google ProtoBuffers. Automated the AWS infrastructure for managed MySQL at Amazon using CloudFormation.

MAC Protocol Developer at xG Technology Sep 2011 - Dec 2011
 Worked on xMax, a real-time data and voice protocol. Designed, developed and tested the xMax logging, a Linux kernel module, to report network status and statistics to /proc.

Radio Software Integration Intern at BlackBerry May 2011 - Aug 2011

Research/Teaching Assistant at University of Florida Jan 2009 - April 2013

Research/Teaching Assistant, Research Engineer at DA-IICT Aug 2006 - May 2008

Projects

Real-time Personalization Platform 2016 - 2017
 Designed and built a POC of real-time personalization platform using Pub/Sub, Dataflow, BigQuery, Bigtable, Datalab and ML Engine on Google Cloud. The goal of this platform is to drive real-time recommendations for product and workout & activity related projects.

OpenStack Poppy and OpenStack Zaqr 2014 - 2015
 Core contributor to OpenStack Poppy and OpenStack Zaqr. Engineered significant portion of their APIs. Designed and implemented several scalability and high availability mechanisms. Built POCs and implemented log management, analytics, billing, streaming analysis solutions.

Bitcoinpy, Reversecoin and Blockchain analysis 2013 - 2016
 Created Bitcoinpy, a Python implementation of Bitcoin with focus on hackability and modularity. Created Reversecoin, the worlds first cryptocurrency with reversible transactions. Analyzed statistical properties of Blockchain using Python Pandas.

CubeSat Cloud 2010 - 2014
 Designed and implemented "CubeSat Cloud", a framework for distributed storage, processing and communication of remote sensing data using CubeSat Distributed File System, CubeSat MapReduce and CubeSat Torrent respectively. Code was written in Python & Twisted.

FUNSAT V & VI and SwampSat 2008, 2009
 Led UF's Small Satellite LASER Communication subsystems team in FUNSAT V and FUNSAT VI; Bagged first prize in FUNSAT-V satellite design competition held by NASA. Designed and implemented communication protocols for SwampSat.

CENSE, WildCENSE and SmallCENSE 2006 - 2008
 Designed and developed CENSE, a delay tolerant WSN testbed for monitoring the habitat of wildlife. Developed WCFFS flash file system and wrote several device drivers. Developed and implemented a grid based localization technique using signal strength from radio base stations.

Linux from scratch 2005
 Built a custom Linux system, entirely from source code using Linux From Scratch. Have good knowledge of Linux internals, how things work together and depend on each other.

Leadership & Activities

Founder and Organizer of ML University & ML Tech Talks at Nike 2016 - Present
 Started the ML Tech Talks group at Nike and taught several classes on Machine Learning basics, Neural Networks, CNNs and LSTMs. Founder & organizer of the ML University, a Nike wide initiative to teach Machine Learning for beginners in a structured approach.

Organizer for Cloud, Data Science & Google Dev Groups 2015 - Present

Tech Talk & Hackathon Organizer and TechCrew member at Rackspace 2014 - 2015