Krishna Ramesh

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SUMMARY: A passionate software engineer with several years work experience and a recent Master of Science. Seeking full-time opportunities in Software Development.

EDUCATION

- **Master of Science in Computer Science** August 2016 - May 2018
  University of Florida - Florida, US

- **Bachelor of Engineering in Computer Science** August 2010 – May 2014
  PES Institute of Technology, Bangalore, India

TECHNICAL SKILLS

Programming:	Java, Python, Ruby, Bash
Web:	Java Spring, Ruby on Rails, AngularJS, HTML5, JavaScript, jQuery, Python Django, ExpressJS, REST
Datastores/Tools:	Oracle, MySQL, MongoDB, Elasticsearch, Solr, Cassandra, Docker, Chef, Git, JIRA
Cloud:	Hadoop, HDFS, MapReduce, Spark, YARN, Zookeeper, Pig, Oozie, HBase, Kafka, Storm, GraphX, AWS

PROFESSIONAL EXPERIENCE

Volkswagen - IT Intern, Enterprise Data Team, Greater Detroit Area, US May 2017 – August 2017
- POC on **Kafka** as a unifying data ingestion tool with platforms having different data production/consumption rates
- Developed a program to process social media data and understand public opinion on various aspects of automobiles. Was useful to analyze the sales patterns of newly released cars. Used: **NLP, Machine Learning, Python (NLTK, SKLearn)**
- Trained peers on using **Python** for data analytics

Cerner Healthcare – Software Engineer (Cloud Infrastructure/DevOps), Bangalore, India June 2014- July 2016
- Developed **Chef cookbooks** to automate deployment of the back-end of cloud-based solutions. **Eliminated hours of regular manual efforts**. Made a POC comparing with **Docker**.
- Optimized scheduling of data processing tasks with different completion times in the infrastructure, through better algorithms. **Decreased processing time through several days**. Used: **Shell Scripting**
- Developed a **web application**, aggregating multi-node log data, providing an intuitive view of metrics, **useful for troubleshooting errors**. Technologies used: **Elasticsearch/Logstash/Kibana stack**
- Deep dive into Hadoop, examining Map/Reduce logs, troubleshooting issues in the cluster
- **Pro-active** efforts to learn **productivity-increasing** technologies like **Ruby** and **Chef**, training the whole team**, adding a valuable capability**. Team lead selected me to **mentor incoming interns** on their projects

Cerner Healthcare - Software Engineering Intern, Bangalore, India January 2014 - June 2014
- **Full Stack-developed**, a web application to monitor data processing in a cloud-based solution, providing valuable metrics to **analyze failures in processing.**
- An innovative way to connect to **Hadoop** ecosystem via **Apache Thrift** interface, enabling development of the complete backend on one technology stack. Technologies: **Ruby Sinatra, MongoDB, JavaScript, jQuery, Bootstrap, Thrift, Hadoop**

RELEVANT PROJECTS

Compiler for a Mini Language - Course: Principles of Programming Languages Fall 2017
- Developed an entire compiler for a **JVM based language** capable of processing 2D images.
- Implemented all phases: Lexical Analysis, LL1 Parsing, Syntax tree generation, JVM bytecode generation
- Technologies used: **Java 8**, **ASM** framework for JVM bytecode generation

Aspect Oriented Sentiment Analyzer – Course: Cloud Computing and Big Data Fall 2017
- A project to mine social media data and analyze the sentiment on various aspects of tech products. Used: **Python**
- Implemented project on cloud platforms like **Hadoop Map/Reduce, Spark, GraphX** to compare and analyze performance

Smart Gunny Bag – Course: Distributed Operating Systems   **Fall 2016**
- IOT project to develop a device capable of sensing temperature and humidity. Team size: 5
- Developed an application over network stack of an embedded OS(XINU), to bridge and enable control of the device from the cloud. Technologies: **C, TCP/IP programming, MQTT/Mosquito**
- **Full-Stack developed** web dashboard application to control (viewing the status, turning on and off) various such devices. Framework: **Python Flask**, **AngularJS**

GoVacation – Course: NoSQL Databases   **Fall 2016**
- A search and discover web application for tourist places
- Used Cassandra as the database, leveraging its scalability and fault tolerance, stored over 100000+ records
- Technologies used: **Spring MVC, AngularJS, Bootstrap, Google Maps API, Apache Cassandra**

PyOpenMP   **Fall 2013**
- A project implementing **OpenMP** parallel processing specification in **Python** to simplify parallel processing using directives within the regular(sequential) code in Python. Team size: 5
- Blocks of code could be targeted and processed in parallel. Provision to specify the number of processes and threads
- Used: **Python Decorators, Multi-Processing module**

HealthKit – Hackathon 2015, Cerner India
- A prototype of an Android-iOS-PC-Linux cross-compatible health app to show vital health information, was developed during a 48-hour long hackathon. Team size: 3
- Strategies were involved to provide online-offline sync capability
- Used: **HTML5, jQuery, ElectronJS, PhoneGap, ExpressJS, NodeJS, MongoDB**

Tech Article Database - Course: Programming in Python   **Spring 2013**
- A dictionary-based **database was implemented** in Python relying mostly on object serialization. Team size: 2
- Developed a web spider to crawl/scrape articles from internet
- Developed a web application full-stack to provide a UI for viewing the articles
- Technologies used: **Python, HTML/JavaScript/jQuery**

ACTIVITIES

Key Presenter @Devcon 2014, Cerner India
- The technical committee selected me based on my internship work, to present a talk on my project at **DevCon**, Cerner's prestigious in-house engineering event showcasing innovative projects worked on in the company
- Project presentation in the presence of **audience of 300+**. Rated **4+/5**

Member @Student Nokia Developer, PES Institute of Technology
- An active developer in the group working on mobile application development
- Applications developed: Scrabble game (Nokia phones), Restaurant finder (Windows phone)
- Technologies used: **Qt Creator for Nokia, Windows Phone SDK**