Kasturi Shirish Vartak

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EDUCATION

State University of New York, Binghamton

Master of Science in Computer Science   May 2021 | GPA 3.36

PVG's College of Science, Savitribai Phule Pune University

MSc in Computer Science   May 2017 | CGPA 8.65

BSc in Computer Science   May 2015 | GPA 3.3

TECHNICAL SKILLS

Languages: Python, Java, C

Web Technologies: JavaScript, Node.js, jQuery, React, PHP, Express, Flask, Django, HTML, CSS, DOM, JSON

Database, Tools: SQL, MongoDB, PostgreSQL, MapReduce, Spark, Docker, Kubernetes, GCP, AWS, Git, Linux, Kafka

Libraries: NumPy, Pandas, matplotlib, NLTK, TensorFlow, bokeh, folium

EXPERIENCE

Research Assistant | Binghamton University | *Python*   August 2020 - Present

● Develop automation scripts to map kldb92 to kldb2010 indexes of Socio-Economic Panel (SOEP) data to analyze the labor market effects of Syrian refugees in Germany

Global Health Impact, Research Aide Web Developer | Binghamton University   June 2020 - September 2020

Technologies: *Python, React, Flask, JavaScript, SQLite*

● Built a forecasting tool to measure pharmaceutical product's impact on global health to advance access for medicines

● Developed scripts to automate data collection/analysis process for Global Health Impact Index

Veritas Software Technologies, Associate Developer | Pune, India   July 2017 - April 2019

Technologies: *Java, JavaScript, Python, SalesForce.com (Service Cloud), REST*

● Developed backend APIs, automation and integration scripts in migration projects, add-ons in Service Cloud

● Reduced workspace rules from 30 to 12 and case loading time by 30% using query and workflow optimization

● Received 3 Veritas applause awards for exceptional perseverance

Veritas Software Technologies, Intern | Pune, India   January 2017 - June 2017

Technologies: *Java, JavaScript, SalesForce.com (Service Cloud), SQL, SOAP*

● Developed Veritas Support website (Landing page & Case management module) using integration with Salesforce API

● Built a Historical case view model, a web-based application using integration with Veritas DataHub (10 million records)

PROJECTS, Binghamton University

Live Video Streaming and Chat Web Application at scale | *Node.js, GCP, Docker, Kubernetes, YAML*

● Built a full-stack containerized web application to engage multiple users at once and to improve audience interaction

● Used Horizontal Pod Autoscaler to scale number of replicas based on CPU utilization on GKE

Light weight vs heavy weight virtualization | *sysbench, iostat, QEMU*

● Conducted detailed configuration and performance tests to analyze critical factors like the CPU utilization rate, I/O throughput, latency and disk utilization in a multi-processing cloud system

● Compared performance reports of traditional systems with hypervisor based virtualization against modern lightweight solutions

House Party | *Python, Django, React, JavaScript*

● A collaborative music playing full-stack application for a group of people to control the music being played at parties where guests can play, pause, skip and vote for a song playing on Spotify

Twitter effect on Billboard HOT 100 | *Python, NLTK, PostgreSQL*, MapReduce, Chart.js, Flask

● Built a web scraper for Billboard's featured charts and a continuous data collection system with Twitter streaming API

● Performed sentiment analysis with NLTK and 'tweets by days, hour' through MapReduce for each Billboard chart entry

Microprocessor Pipeline Simulator | *C*

● An Out-of-order APEX pipeline simulator to demonstrate cycle-by-cycle execution of sequence of assembly instructions

● Implemented multiple FUs, ROB to support Load-Store, branching instructions and data forwarding

Multithreaded HTTP server | *Python*

● Developed multithreaded HTTP server that accepts HTTP requests and returns desired content to client along with meta-data