Sandeep Kumta Vishnu

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Skills

- **Languages**: Java, C#, Python, JavaScript, C, SQL
- **Web**: NodeJS, ExpressJS, ReactJS, jQuery
- **Database**: CosmosDB, MongoDB, MySQL, Postgres, Oracle, Redis, Kusto
- **Familiar**: Kafka, EventGrid, Docker, Kubernetes, Spark, Zookeeper, REST, Git, OAuth

Experience

- **Microsoft Corporation** — Redmond, WA
  Software Engineer II in Azure Compute Platform Org. — *Feb 2019 - Present*
  - Developed a new kind of virtual Machines called **Azure Spot** which is 70-80% cheaper than the on-demand VMs, evictable in nature, and automatically gets evicted if capacity is needed for the regular VMs. I worked on the platform layer implementation of this feature with an optimized cluster selection algorithm and automatic eviction based on capacity availability for this evictable **Azure Spot** VMs. This feature helped to improve Azure's cluster utilization from 65% to 95% across the Azure Public Cloud. I worked on this feature from its initial implementation all the way until the GA.
  - Designed and implemented a machine learning-based micro-service to automatically restore the evicted **Azure Spot** virtual machines when capacity is available and lower the probability of repeat eviction. This improved the run-time of **Spot VMs** by 4X and increased the Azure Spot cores consumption by 5X.
  - Worked on supporting dynamic Geoconfig metadata update for Azure Compute Resource Provider during new cluster on-boarding or decommissioning an existing cluster without downtime and static deployment.
- **Datrium Inc.** — Sunnyvale, CA
  Software Engineering Intern — *Summer 2018*
  - Developed a timeseries forecasting model using ARIMA & FBProphet and created a forecasting dashboard for intuitive projections and automatic alerting system based on the forecasted data.
- **Stony Brook Medicine** — Stony Brook, NY
  Research Assistant — *Oct. 2017 – Dec. 2018*
  - Worked on full-stack application development of health-care research project **My-Asthma-My-Plan**. It is a HIPAA compliant application for enabling smooth communication between healthcare team, patients, community health workers, guardians with a seamless integration with electronic medical record platforms and patient portals using **SMART on FHIR** specifications.
- **VMWare Inc.** — Bengaluru, India
  Member of Technical Staff — *Jul. 2015 – Jul. 2017*
  - Worked on transforming the monolithic application into **containerized micro-service REST architecture** for increase in scalability and scope for the latest UX improvements.
  - Developed a **deletion framework** for clean deletion of entities which resolved more than 40 critical bugs related to the deletions with dependencies. I was awarded **Certificate of Recognition** for this.
  - Developed a mobile application **vAssist** to manage virtual machines in cloud using voice commands.

Education

- **Stony Brook University** — Stony Brook, NY
  Master of Science in Computer Science — *Aug. 2017 – Dec. 2018*

Projects

- **SBUnix**: Developed an operating system kernel from scratch with multi-level paging, pre-emptive scheduler and multi-tasking ability supporting tar file system and an interactive shell.
- **Blood report analyser**: A mobile application which helps layperson to understand the blood reports by capturing image of the report and using Google's tesseract optical character recognition library to interpret the report.