**Manish Kumar Valakonda**

**Mobile**: (716)563-6635 **Email**: manish.valakonda@gmail.com www.linkedin.com/in/manishkumarv

# EDUCATION

**Stony Brook University,****New York, U.S.A.**  **Aug 2016 – Dec 2017** *Master of Science, Computer Science*

Relevant Courses: Operating Systems, Analysis of Algorithms, Data Science, Visualization, Artificial Intelligence.

**Indian Institute of Technology Patna, India July 2012 – May 2016** *Bachelor of Technology, Computer Science*

# SKILLS

**Languages:** Java, C, Python, JavaScript, MySQL, HTML, CSS

**Technologies:** REST, Django, Cloud Computing, Kernel Prog., D3.js, Git, Perforce, Linux, Maven, IntelliJ, Pandas,

SKlearn, Jenkins, Android Studio, Pandas, NumPy.

# WORK EXPERIENCE

**VMware Inc. June 2017 – Aug 2017** *MTS Intern, Hybrid Cloud Team Palo Alto, CA*

* Developed actions in IBM OpenWhisk for migrating VMs in vSphere based cloud and for supporting disaster recovery by extending Hybrid Cloud Services(HCX) functionalities. Orchestrated these HCX actions to create complex workflows involving bulk migration and bulk disaster recoveries of VMs.

**Institute of High Performance Computing, A\*STAR May 2015 – July 2015** *Research Intern Singapore*

* Extracted marine incidents data and vessels data of USA, AUS and NZ. Analyzed the causes of over 700 marine accidents, Correlated type of the accident with the cause of the accident and Visualized using heat maps.

**Defence Electronics Research Laboratory May 2014 – July 2014**

*Software Intern Hyderabad, India*

* Developed a tool consisting simulator and server which simulates the ESM (Electronic-Warfare Support Machine) Track system, where random values of EM signals were generated based on their allowed ranges.

**PROJECTS**

**Social Media Analytics for Opioid Related Health Studies (BMIDB Lab Stony Brook University)**

* Currently working on analyzing Opioid drug-related tweets using Biterm and Latent Dirichlet Allocation topic modelling. Determined the appropriate number of topics based on rate of perplexity change.

**Per process system call vectors for Linux**

* Modified Linux Kernel (4.6) to support per process system call vectors by implementing system call vectors as modules and by intercepting system calls for allowing users to override/wrap system calls and using a different set of system call vectors per process. Vectors can be set/removed/updated for a process using a IOCTL.

**TRFS (Stackable File System with Tracing Support)**

* Designed and Implemented a stackable file system in Linux which can trace major file system operations and logs it to a file in lower file system. Implemented a user level program to replay the traced operations from the log file.
* Tracing functionality can be enabled/disabled/updated using a IOCTL interface.

**Assessing U.S. road accidents using Interactive Visualizations**

* Developed Interactive dashboard to provide info-graphic information about road accidents in U.S. using visualization techniques - Parallel coordinates, Sunburst, Time series plots, K-Means Clustering

**Casting System for actors from IMDB**

* Novel Scoring system for recasting movies on IMDB with different actors. Developed a scoring mechanism to find similar actors from the IMDb dataset, extracted the characteristics of actors and assigned a score to each actor.

**Indexing Wiki Dumps**

* Inverted Indexed Wikipedia Dumps using Hadoop for better retrieval of information. This Involved applying indexing algorithms and techniques to improve the efficiency of creating an Inverted Index.

**Course Management System**

* Developed a web-based software for the management of courses by faculty and students. This software has functionalities like course registration, course info, discussion forum, polls and calendar.

**PUBLICATIONS**

‘**Content Analysis of Marine Incident Reports: The Causal Factors and Associative Relationship**’, published in **International Conference on Computing Technologies and Intelligent Data Engineering (ICCTIDE)**, 2016.