SUPRABHA SOMASHEKHAR

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EDUCATION:

Masters, Computer Science and Engineering — Sept'17-Dec'18
University of California, San Diego — [3.73/4]

Bachelor of Engineering, Information Science and Engineering — Sept'11-May'15
R V College of Engineering, Bangalore — [9.17/10]

WORK EXPERIENCE:

Software Engineering Intern — June'18-Sept'18
Cisco Systems, San Jose

- *Developed a health monitoring tool to keep track of usage and infrastructure of NX-OS switches*
- *Developed backend microservices to enforce effective optimization and usage of switches [Python, MYSQL, Javascript, Machine Learning]*

Graduate Student Researcher — Jan'18-June'18
UCSD-IBM Human Microbiome Project, San Diego

- *Deployed and orchestrated an ova and automated the process of qiita installation[Shell][Improved time spent on installation from 30 minutes to less than 2 minutes]*
- *Developed new and extended existing qiita plugins (plugins for microbial analysis) [Python,Shell]*
- *Used Machine Learning Algorithms to bring in new insights of the relation between microbiome data and diseases caused by them. [Python, Machine Learning]*

Member of Technical Staff — July'15-Aug'17
VMware Private Limited, Bangalore

- *Developed a report framework called 'Hybrid Cloud Assessment' from end to end [number of licenses sold increased by 10%][Java,Postgres,MongoDB]*
- *Developed APIs to provide comparative cloud costs and optimization analytics[REST,Java]*
- *Developed a mapping interface between user-roles and infrastructure owned.[Java]*
- *Developed APIs to connect to the vRealize Business Product through the vCenter Server Applicance Management Interface.(VAMI)[Python]*
- *Delivered Azure integration between two core products (vRealize Automation and vRealize Business)*
- *Engaged in regular customer interactions and critical bug fixing activities[Java,Postgres]*

PROJECTS:

Identification of Tree species based on leaf patterns:

- *Built a binary classifier(k-means) for leaf/non-leaf classification and PNN classifier for tree identification using 12 morphological features (MatLab, Python) [Accuracy:90.32% for a 20k record dataset]*

User-Business Visit Recommender:

- *Developed a recommender system using real data of two hundred thousand samples to predict the accuracy of user-business visit and made user business rating predictions (Python) [Accuracy:91%]*

Performance Comparison of Virtual Machines and Containers with Unikernels:

- *Factors considered includes Scalability, reboot time, initial startup time, read and write times.*
- *Presented the results in Compute Metric Group(CMG) Conference*

Image Filling:

- *Filled in portions of images that are missing/corrupted/unwanted using DCGANs*

PRIMARY SKILLS:

Courses: *Algorithms and Data structures, Database Management, Recommender Systems and Web Mining, Natural Language Processing, Graph Theory*
Programming & Scripting: *Java, Python, Shell [familiar with: Perl, Javascript, C, C++]*
DB experience: *MySQL, Postgres, Spark/Hadoop*