1137 East Orange St **NINAD JADHAV**  +1(480) 494-3027 Tempe, Arizona [www.linkedin.com/in/nj-asu-grad](http://www.linkedin.com/in/nj-asu-grad) [jadhavhninad@gmail.com](mailto:jadhavhninad@gmail.com) ----------------------------------------------------------------------------------------------------------------------------------------------------------------------

**EDUCATION** ***MASTERS in COMPUTER SCIENCE*** (3.11/4.0) **ARIZONA STATE UNIVERSITY** **Aug 2017 - present**

* *Statistical Machine Learning, Deep Learning in Visual Computing, Control & Coordination of MultiRobot system (Spring 2018)*
* *Multimedia and Web databases, Embedded Operating System Internals, Foundation of Algorithms (Fall 2017)*

***B.TECH IN COMPUTER SCIENCE & ENGINEERING*** (9.07/10) **SRM UNIVERSITY** **June 2010 – May 2014**

**TECHNICAL SKILLS**

* **LANGUAGES** : C++, Python(numpy, pandas), C, Shell Script, Java
* **OPERATING SYSTEMS** : Linux (CentOS, Ubuntu), Windows
* **AREA OF INTEREST** : Machine Learning, Software Development, Data Storage
* **CERTIFICATIONS** : EMC Information Storage Management V2
* **TECHNOLOGIES :** Git, Jenkins, QTP
* **GITHUB PROFILE** : https://github.com/jadhavhninad

**WORK EXPERIENCE**

**DELL EMC** **| SOFTWARE ENGINEER 2 July 2016 –July 2017 | Bengaluru, India**

* Tackled continuous deployment of multiple release branches for ***Data Domain*** to provide clean stable code to engineering teams.
* Debugging points of failures & automating such scenarios for features like ***replication, recovery/backup to cloud, de-duplication, archiving, long-term retention*** *&* ***encryption*** using in-house ruby framework for PPBA and Datadomain Virtual edition.
* *Dockerized* the ruby framework and developed feature test buckets for faster and targeted debugging of scenarios on specific Data Domain hardware. Achieved improved usability by integrating the process with Jenkins server.

**EMC CORPORATION** **| ASSOCIATE SOFTWARE ENGINEER June 2014 –June 2016 | Bengaluru, India**

* Stabilized the in-house automation framework for Desktop/Laptop and ACM features of AVAMAR by upgrading existing libraries
* Increased efficiency of the framework by developing new modules for handling additional features.
* Improved coverage for features like ***backup/restore, client configuration and scenarios involving DTLT-ACM integration,*** thus enhancing the release efficiency to match quick release cycles***.***
* As part of scrum team for Backup & Recovery Manager 2.0 project, contributed towards product improvement by:
  + performing ad-hoc analysis of UI & backend mongo DB, checking product scalability with Load & Performance Analysis
  + Verifying data integrity through RABBITMQ and Mongo DB layers, automating stable features for slashing analysis time.

**Technologies used**: Docker, RabbitMQ, Mongo DB, Java, Ruby, ***AVAMAR & DATADOMAIN*** (Enterprise Backup Solutions)

**PROJECTS**

* **NEURAL NETWORK CLASSIFIER FOR MNIST DATASET: Feb 2018**
  + 2 Layer and Multi-Layer Neural Network was developed for classifying digits using python (numpy)
  + Binary Classification was tested which gave 100% accuracy (train & test data) on the multilayer Network
  + Accuracy of 94% and 92% was achieved (train & test) for MultiClass Classification Task
  + RELU, TANh & Sigmoid functions were used for generating the activation functions
  + For performance comparison K-Nearest Neighbors classifier was used with different K values.
  + Maximum accuracy of 94% was achieved and a decrease in accuracy was seen for very high values of K [(Github Repo)](https://github.com/jadhavhninad/Neural-Network-Classifier-for-MNIST-DataSet)
* **IMPLEMENTATION OF REGRESSION and CLASSIFICATION TECHNIQUES : Jan 2018 – Feb 2018**
  + A logistic model was implemented using python & Numpy for digit classification based on *MNIST* dataset
  + Binary Classifiers developed for *Bank Note Authentication* data set using Gaussian Naive Bayes and Logistic Regression
  + Another approach was analysed which explored polynomial curve fitting using ridge regression technique
  + Optimal value of regularization constant was selected based on mean 10-fold Cross Validation error ([Github Repo](https://github.com/jadhavhninad/2-Digit-Logistic-classifier-for-MNIST-data))
* [**LATENT SEMANTICS BASED MOVIE RECOMMENDER SYSTEM**](https://github.com/jadhavhninad/Latent-Semantics-Based-Movie-Recommender-System)**: Oct 2017 – Nov 2017**
  + As part of a semester long group project, a movie recommender system was developed during the final phase.
  + Users were provided new movie recommendations based on their historical data of watched movies (IMDB & MovieLens Dataset)
  + A probabilistic relevance feedback loop was used to improve the recommendations dynamically based on user feedback.
  + Implementation approaches explored involved SVD, Tensor Decomposition and PageRank.
  + Technology stack : python(pandas, scikit, numpy), MySQL ([Github Repo](https://github.com/jadhavhninad/Latent-Semantics-Based-Movie-Recommender-System))
* **DYNAMIC INSTRUMENTATION IN KERNEL MODULES Nov 2017- Dec 2017**
* Used kprobe API to add and remove dynamic probes in any kernel programs
* Kprobes were inserted on multiple calls developed for RB- Tree data structure (like read, write)
* Multi-threaded user program was developed to make the required system calls leading to a kprobe hit

([Github Repo](https://github.com/jadhavhninad/Kprobes-on-RB-tree-kernel-data-structure))

* [**LINUX BARRIER MECHANISM FOR MULTI THREADED PROGRAM**](https://github.com/jadhavhninad/Linux-Barrier-Mechanism-for-multi-threaded-program) **Sept 2017- Oct 2017**
* Multiple Linux system calls were developed to simulate barrier mechanism similar to POSIX pthread library.
* Three barrier methods – barrier\_init, barrier\_wait and barrier\_destroy were implemented as a system call each with timeout.
* A test program was used that forked two child processes and generated multiple threads to make the system calls.
* The kernel was compiled and a patch file was generated to distribute the kernel changes. ([Github Repo](https://github.com/jadhavhninad/Linux-Barrier-Mechanism-for-multi-threaded-program))
* **DOCKER Container Network Accessibility**  **Jun 2016 – Jul 2016**
  + - Configuring network access for DOCKER containers via DHCP to support their accessibility to Jenkins server
    - Aimed to assist the auto-deployment process of test feature containers to debug a new release on Data Domain hardware

[(Github Repo)](https://github.com/jadhavhninad/Docker-dhcp-ssh)

* **LIBRARY OPAC WITH MOBILE RENEWAL AND CLOUD BASED NOTIFICATIONS Jan 2014 – March 2014**
* An Android application was developed to help students of SRM University to view the available books in college library.
* Functionality was added to remotely renew the books issued by scanning its QR/Bar code. ([Github Repo](https://github.com/jadhavhninad/Library_OPAC_Mobile_app))