FREEZE FRANCIS

Objective

Seeking a challenging career to enrich and apply my technical skills to further company growth.

Contact Information

Work Experience

CenturyLink Tech. Pvt. Ltd, Bangalore Software Development Engineer AUG,2014 - JUN,2015 Technology: JAVA/J2EE

• Developed web applications for generating sales order XML for easy testing.

Teaching Assistant at IIIT, Bangalore

JUL,2016 - AUG,2016

LinkedIn: link

• Teaching assistantship for Java Programming course for Mtech, 2016 Batch

Professional Skills

Languages: Core Java, C/C++, Python3, Scala, MATLAB, JavaEE

Operating System: Ubuntu 14.04, Windows 7

ML libraries: Scikit-learn, GraphLab Create, Tensorflow

Graphics API: OpenGL, GLUT

Frameworks: Struts 2.0, Hibernate, Seaborn J2EE servers: Apache Tomcat, WebLogic CVS, Serena Dimensions, Git

Databases: Oracle, MySQL

Softwares: Eclipse, Keil, SQL-Plus, Doxygen, Latex, Jupyter Notebook.

Hardware: Atmega 8/16/32 Microcontroller, 8051.

Areas of Interest

Machine Learning, Algorithms & Data Structures, Mathematics, Competitive Programming.

Education

Course	Year Of Passing	Marks Obtained	Institute
M.Tech IT (CS)	2017	3.87/4	IIIT, Bangalore
B.Tech ECE	2014	8.73/10	NIT, Calicut
12 th CBSE	2010	95.4%	Devamatha CMI Public School
10 th CBSE	2008	96%	Devamatha CMI Public School

Projects Completed

Academic Projects

Estimation of High Resolution image from set of Low resolution images.

Team size: 4 **Language**: MATLAB

- Implemented algorithm for estimating shift parameters between images for image registration.
- Implemented POCS(Projection Onto Convex Sets) based image reconstruction method.
- Designed a simple UI.

Movie Recommender System

Team size: 1 **Language/Libraries**: Python/Scikit-learn **Source**: MovieRecommender

- •Clustered movie based on genres and computed cluster average ratings per user.
- Computed user-user similarity using Pearson correlation coefficient.

- Predicted reviews per user based on top similar users.
- Mean Squared Error of 1.23 achieved on MovieLens 100K dataset.
- Attempted matrix factorization approach.

FPGA implementation of CORDIC algorithm(UG Major Project)

Team size: 4 **Language**: MATLAB/VHDL

- **CO**rdinate **R**otation **DI**gital **C**omputer: Efficient method of computing trigonometric values based on cordinate rotation involving simple shift add operations.
- Reduced the complex multiplications to simple shift and add operation.
- Developed a pipelined CORDIC core that computes trigonometric values efficiently.

Scene Graph Implementation

Team size: 1 **Language**: C/C++ **API:** OpenGL/GLUT **Source**: <u>SceneGraphs</u>

- Scene graph: Tree data structure storing the logical and spatial representation of scene.
- Implemented scene graph.
- Designed a animated scene adhering to MVC architecture.

Professional Projects:

Customer Order Document(COD) Generator (CenturyLink Tech.).

Team size: 3 **Language**: Java/J2EE,HTML/CSS/JSP, JavaScript **Server:** WebLogic **Framework:** Struts 2.0,Hibernate

- •An automated testing tool for generating sales order XMLs.
- Designed configurable UI for displaying relevant fields in template XMLs.
- Exploited the structure of sales order XML to support for different product.
- •Extended functionalities to populate concerned DB tables to initiate a order provisioning workflow.

Certified Online Courses

- Machine Learning: ML Foundations by University of Washington, Coursera.
- Machine Learning: Regression by University of Washington, Coursera.
- Machine Learning: Clustering & Retrieval by University of Washington, Coursera.
- Machine Learning: Classification by University of Washington, Coursera.
- Text Retrieval and Search Engines by University of Illinois at Urbana-Champaign, Coursera.

Achievements

- Part of the Dean's Merit List twice in first and second semesters Mtech, IIITB.
- Ranked 5th in **Tesco Codeathon** (Algorithms contest),2016 conducted on Hackerearth.
- Ranked 76th <u>Machine Learning Codesprint</u> and 44th in <u>Walmart ML Codesprint</u> on Hackerrank. (username : CodeName777)
- Active contest programmer on Hackerrank. (**profile** : link)
- Oualified GATE ECE-2014 with AIR-567.
- Qualified NSEC 2009(National Standard Exam in Chemistry) and appeared for INChO (Indian National Chemistry Olympiad), 2010.
- Qualified IIT-JEE,2010 with AIR-5308 and Kerala Entrance,2010 with Rank-72.
- School Topper in both 10th and 12th board exams.
- Amul Vidya Shree award for outstanding performance in 10th board exam.
- State Rank 66 in 7th National Cyber Olympiad, 2007

Activities

- Conducted AVR micro-controller programming workshop as part of IEEE, NITC.
- Organized Electronics Stall for Tathva, 2012 (Tech fest at NITC).

Declaration

I hereby declare that the above details are true to the best of my knowledge and belief.