

3 years of experience and more than 8 years of enthusiasm for programming in Java, Javascript and Python

PROFESSIONAL SUMMARY

Full Stack Software Developer in the research group of one of the largest decision science companies. Working on research and development of high scale software solutions. Have been practicing software development across various platforms. Been a part of projects on web engineering, automation, application software, big data, data science, mobile and more.

SKILLS

Core Skills



Frameworks and Concepts



EXPERIENCE

Mu Sigma
Developer

October 2015-Present

Responsible for fostering research and development of projects around scalable architectures, application software, machine learning, algorithms, etc. in the Innovation and Development (I&D) team. Key duties include:

- Ideaizing and designing Mu Sigma’s next generation products
- Writing scalable mobile ready applications for Mu Sigma’s analytics ecosystem
- Implementing back end functionalities such as REST APIs, business logic and database operations
- Designing and implementing various components of the software architecture and working on requi
- Writing unit test cases for both front and back end
- Implementing algorithms using state of the art technologies
- Research and implementation of scalable architectures on big data frameworks
- Managing software build cycles and automating CI/CD pipelines
- Training Mu Sigma’s fresh recruits on new technologies

NIIT

Technical Trainer

June 2015-September 2015

Trained students on various domains including Java desktop, web, mobile, Python and Android.

Eulogik

Development Intern

June 2014-July 2014

Worked on web technologies including CodeIgniter framework, Bootstrap 3 and Intel App Framework. Developed, tested and assisted designing live projects for the company. These projects included web 2.0 applications and hybrid HTML5 mobile applications.

MAJOR PROJECTS UNDERGONE

Business Process Modeling and Deployment Framework

Java, AngularJS, Spring, MySQL

- Responsible for managing the full software stack - AngularJS, Spring and MySQL
- Literature study, design and implementation of dynamic Business Process Model (BPM) designing web application adhering to the BPMN 2.0 standard using Activiti BPMN engine
- Enabled configurable connections to remote machines to run business process models remotely
- Worked on implementing custom activities to run programs (R, Python, Shell) within the business process models. Wrote behaviour classes, XML definitions and integration models for these activities
- Implemented file system workspace which enabled activities to use resources and scripts files stored both locally and remotely. Implemented the required features for workspace such as web sockets, queues, FTP pipelines etc
- Implemented versioning of workspace files using git
- Implemented validation of BPMN elements and thus reducing the chances of human errors while modeling.
- This helped the users save time as the bugs in their BP models could be pointed out at design phase rather than deployment phase

Human Motion Tracking at Scale

AngularJS, Python, Java, HTML5, Tensorflow, Dask, PostgreSQL

Full stack developer in Mu Sigma's scalable deep learning based human detection and tracking platform

Responsible for:

- Design and implementation of cloud friendly and scalable architecture of this platform
- Optimizing the user experience by design and implementation of user friendly interface
- Back end development, implementation of ML algorithms for computation
- Implementing business process flows using BPMN platform
- Build process and deployment automation

Contributed in:

- Reducing the overall time taken for training human detection model (End to End People Detection in Crowded Scenes - ReInspect) using distributed computing features of Tensorflow
- Enabling the code to utilize multiple CPU cores and graphic processors for parallel processing
- Distributing Multi Hypothesis Tracking (MHT) python code processing over multiple machines using Dask Distributed to enable real time human motion tracking
- Implementation of MHT – Revisited algorithm in Python

Real Time Algorithmic Trading Engine

Scala, Java, Python, R, Apache Flink, HTML5, PostgreSQL

- Design and development of real time algorithmic trading engine which can use mathematical algorithms to place a trade order on the New York Stock Exchange
- Development of a user interface to manage and visualize ticker data and the analysis. Design and development of a back end to support the architecture of this UI
- Implementation of convergent cross mapping (CCM) algorithm to detect causality and the relationship between pairs co-integrated of tickers. Prediction of stock prices with linear modeling on causal pairs of stocks
- Implementation of Recurrence Quantification Analysis over ticker data to determine recurring behavior of stock prices and to place trade orders accordingly
- Research on determining change points in stock prices over time using R packages. Implementation of dummy variable regression method to determine change points

EDUCATION

Bachelor Of Engineering

Computer Science and Engineering

Rajiv Gandhi Technical University, Bhopal - 2015

8.4 CGPA

High School Certificate

Sharda Vidya Mandir, Bhopal (CBSE) - 2011

73.6%

Senior School Certificate

Sharda Vidya Mandir, Bhopal (CBSE) - 2009

62.8%

ACHIEVEMENTS

- Recognized by Mu Sigma for contributions in projects and research.
- Contributed in Tensorbox source code – Tensorflow implementation of ReInspect – Object Detection (Github pull request #78 on Russell91/TensorBox)
- Reported multiple bugs in Activiti, tensorflow and other popular repositories which in turn resulted in resolving issues
- Awarded “Best overall performer in CSE” by Radharaman Institute of Technology and Science for year 2015
- Various awards in music competitions including Maffick (MANIT, Bhopal), Techfizz (OCT, Bhopal) and
- Patrika Consumer Expo competition of bands
- Various awards in blogging competitions at IndiBlogger blogging community
- Top 5% in CodeVita 2014 global programming contest organized by TCS

HOBBIES

Rock and metal music, Cooking, Blogging