

Maulik Dave

Java/J2EE, ML Lead Consultant Profile

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Certifications:

- Oracle Java SE 7 Programmer I
- Infosys Java Programmer 202a
- Coursera: Improving Deep Neural Networks: Hyperparameter tuning, Regulations and Optimization
- Coursera: Deep Learning Specialization
- Coursera: Neural Networks and Specialization
- Coursera: Sequence Models
- Coursera: Structuring Machine Learning Models

Profile Summary:

- Highly proficient **Oracle Java certified** IT professional with proven analytical abilities and organizational skills with **above 7 years of IT experience** on various multi-tiered architecture based enterprise applications.
- Completed **Deep Learning certifications** in Machine learning from CourseEra
- **Extensive understanding in Random Forest, Linear Regression, SVM, regulation, Neural network, CNN and RNN**
- Extensive experience on Design & Development of Web tier, Business tier, Middleware, Application Integration and Database tier of the enterprise applications.
- Extensive programming experience with JAVA, J2EE, J2SE, Servlets, JSP, EJBs, MVC/Model 2(Spring & JSF Framework), J2EE Design Patterns (Session Façade, Business Delegate, Singleton, DAO), IoC Framework Spring, ORM tools like Hibernate, XML, XML Parsers, Ajax, Web Services.
- Experience with Architect/Designer profile on Analysis Model & Detail Designing using UseCase Realization for Web tier, Business tier, Integration tier.
- Strong exposure on complex SQLs for complex scenarios using joins, case statements / functions and experience of Oracle, MS SQL Server and DB2 platform.
- Experience with setting up project infrastructure integrating project management tools, Code repositories, and Organizational Maven repositories.
- Experience on popular Application servers like JBoss Application Server, Glassfish, Jetty and Apache Tomcat Application Server.
- Strong exposure on Version Control Tools like GIT.
- Strong exposure on project development with Maven.

Technical Proficiency:

Languages	JAVA/J2EE, XML, HTML, C, C++, SQL, C#
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Technologies	JDK 1.1- 1.7, J2EE (JSP, Servlets), JDBC, Ajax, RMI, JNDI, Log4J, WSDL, DTD, XML Schema / XSD , XMLBean
Frameworks	Java Server Faces (JSF), Hibernate, Spring
Application Servers	Glassfish, Jetty, JBoss, Apache Tomcat, Sun J2ee Server, Oracle App. Server
Scripts	AngularJS, JavaScript, DHTML, CSS3, HTML5
Operating Systems	Windows 2000, XP, Vista, 7, 8, 10, Windows NT, MS DOS and UNIX / Linux.
Tools	Enterprise Architect, Netbeans, Eclipse, Sql Developer, Subversion, CVS, VSS, Maven, Ant, Junit, Crystal Reports, Birt Reports, Jira and Bugzilla
Databases	Oracle 8i/9i/10g, SQL Server, MySQL, PostgreSQL
Patterns/Standards	Core Design Patterns(GoF), J2ee Design Patterns, Web 2.0

Qualification:

Masters of Science (Information Technology), DA-IICT, Gandhinagar, India.

Employer: Argusoft India Ltd.;

Position: Group Senior Lead Analyst - Tech

June 2016- Onwards

Employer: Infosys Ltd. (Pune)

Position: Senior Software Engineer

Jan 2014 - March 2016

Project Details:

Project: Streamlyne

Environment: Java, Spring, Hibernate, AngularJS, [microservices based architecture]

Employer: Argusoft Ltd.

Description:

A project for universities, where the system covers all the operations of a university under its umbrella. One IT solution which can help all the paperwork to convert into the digital platform starting from the admission, course/program enrollment, seat allocation, time management, classroom management, student - instructor- office staff management, exam system, fees and account department, sports and other activities management, etc. We used microservices in the project to decentralize and decoupled into services that act as separate entities. Also scalability is the key aspect of microservices. Microservices works with loosely coupled services, you don't need to rewrite your entire codebase to add or modify a feature. You make changes only to a specific service, and we took each of the systems of

the university as a microservices.

Role and Responsibilities:

- Worked in the profile of the Senior Developer
- worked on microservices design, where a single unit can be broken down into different modules making development, deployment, and maintenance rapid and scalable. Written microservices to perform as a nearly-stateless system allows it to be developed independently, and incorporates all the required business functions.
- followed a business-oriented API built using RESTful or lightweight messaging techniques
- Worked closely with clients to understand the existing application and define the scope for the new system.
- Worked on backend modules creating database, RESTful APIs, Hibernate entities which were consumed by frontend modules.
- Provided help and support for unit testing as well as e2e testing.

Project: TeCHO+ - "A Birth Prediction Project"

Environment: Deep learning, random forest, decision trees, python

Employer: Argusoft Ltd.

Description: The Techo+ app generates a large amount of data, which includes pregnancy and birth mortality related data as well. We created a model which predicts the outcome of a pregnancy if this pregnancy will successfully deliver a child or not using machine learning classification algorithms.

Dataset: 6 Million pregnancy data.

To develop the model, we followed Random Forest Classification. Before that we anonymised the data, to provide the model by removing person related features like name, phone number, address, etc.

We also worked on Data Cleaning for null value, removing the features by feature-correlation and removing the bad values, Visualizing the Data based on Outcome, Plotting the Correlation, and following several Classification Methods.

Implementation Approach:

To determine the best suited Classification Method, we tested methods which are as follows:

Logistic Regression,
Stochastic Gradient Descent
Random Forest
Support Vector Machine
K-Nearest Neighbour
Gaussian Naive Bayes
Multi-Layer Perceptron
Linear Support Vector Machine
Decision Tree

From the analysis the Random Forest algorithm provided better results for Score, precision, recall & f-score.

Even to improve further, we also took measures like reducing the features by looking at how much the tree nodes that use each feature reduce impurity on an average.

Validation Process:

After writing the above model, we validated it through below

Confusion matrix
Precision
Recall
F-Score
OOB (out-of-bag samples)
Overfitting
Underfitting

Technologies Used: Python, Random forest classifier, Scikit-learn (Sklearn), Matplotlib, Seaborn, Pandas, Numpy

Result: -

The model created with 83% accuracy, below are the statistics produced in validating the model.

Scoring Accuracy: 83.00 %
Scoring Mean: 84.73 %
Scoring Standard Deviation: 1.6357 %
Precision: 85.91 %
Recall: 74.85 %
f1-score: 80.00 %

Project: AT&T

Environment: Java, JSF/JSP, Angular

Description: At&t is one of the largest telecom service providers in the US. The application is based on the custom billing and customer repository system. Using micro services architecture we developed the core architecture for customer management for the client

Employer: Infosys Ltd.

Role and Responsibilities: Worked in the profile of developer

- Responsible for developing the architecture based on the micro services
- written generators wherever possible so we can reduce writing the code repetitively for the system and develop in rapid environment
- Also written some of the business logic and followed the design patterns for that

Project: Business Modeller

Environment: AngularJS, Bootstrap, Java, Spring Boot, PostgreSQL

Employer: Argusoft Ltd**Description:**

Business Modeller Framework is a proprietary configuration based framework that can be leveraged for design and development of applications consisting of workflows. This Framework includes Document Management, User Management, Workflow Management and Reporting Engine. Based on the finalised set of requirements, an entire application layer is recreated using this framework. A fit and gap analysis shall be performed between the agreed upon requirements and the features of the Business Designer Framework so that it can be customized for the purposes as required. This framework also ensures easy upgradability of the workflows and processes in the future, hence lending itself to be easily changed.

Role and Responsibilities:

- Worked in the profile of the senior group lead developer
- Contributed to designing the architecture and product outline
- Worked on the Core layer of the project consisting of business logic.
- Worked extensively on various modules like creating dynamic entities , workflow and financial module.
- Designing of the component and its different modules with Maven.
- Implemented modeller for various clients.

Project: Techo+

Environment: AngularJS, Bootstrap, Spring Boot, Hibernate,PostgreSQL

Employer: Argusoft Ltd.

Description: A name-based system that will have a module of family health survey program, RCH (Reproductive & Child Health) program, LMP tracking of eligible couple, monitor mother and child related health status, increase accuracy and currency of reporting by easier data collection strategies, provide key and critical information to all stakeholders at various levels - anytime & anywhere.

Roles & Responsibilities:

- Worked as a senior developer
- Responsible for Core architectural business logic.
- also Involved in written code for android app for barcode/QR scanner and other tool support ●
- Interaction with client, for the rapid development and report system
- Worked on third-party web service integration