

Madhukar Shrestha

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PROFESSIONAL SUMMARY:

- Experienced software engineer with 7+ years of comprehensive experience collaborating with cross-functional teams to achieve team expectations in a fast-paced environment.
- Adept at taking on diverse development and debugging challenges and committed to delivering high-quality code that is scalable, efficient, and maintainable.
- Strong understanding of the software development life cycle and experience working in Agile environments.

TECHNICAL SKILLS:

Languages	JAVA, C, C++, J2EE, PL/SQL, PHP, Python
APIs	REST, SOAP, AWS APIs, Apache SOLR/Lucene, JDBC, JNDI, JPA, JSF, JSTL, EJB
Design Patterns	MVC, DAO, DTO, Front Controller, Session, Facade, Business Delegate, Observer, Singleton
Frameworks	Java Cascading, Hadoop, Hibernate, Spring, Spring Boot, Grails, JSF, Apache Kafka, Laravel, Flutter
Cloud Services	Amazon EMR, SQS, Lambda, Redshift, S3, Google Firebase,
Scripting/GUI Tools	HTML, JSON, JavaScript, CSS, Shell Script, JavaScript, Angular, TypeScript development skills. jQuery, React.js, Angular.js, Backbone.js, Require.js, Node.js, Bootstrap.
Application Servers	Apache Tomcat, WebSphere, NGINX
IDE	IntelliJ, VS Code, Eclipse, PyCharm, PhpStorm
Databases	Oracle, MySQL, SQL Server, MS Access, JDBC, Connection Pooling/Data Source, Stored procedures, Packages, Triggers, Cursors, Views, Indexing, MongoDB, Amazon Redshift
Operating Systems	Windows, Unix, Linux, MacOS

EDUCATION:

- Master of Science in Computer Science, **University of Central Oklahoma**, Edmond, Oklahoma, USA - 2023
- Bachelor Science in Information Technology (Computing), **Islington College**, Kathmandu Nepal - 2014 (affiliated to **London Metropolitan University**)

CERTIFICATIONS

- **Angular**: Coursera, Issued Jun 2023, Credential ID RGVEFBC7V2JU
- **Cyber Operations (Penetration Testing)**: Micro-credential provided by University of Central Oklahoma
- **Cloud Web Applications Development**: Micro-credential provided by University of Central Oklahoma
- **Secure System Administration** : Micro-credential provided by University of Central Oklahoma
- **AngularJS for Beginners: Getting Started**, Coursera, Issued Jun 2023, Credential ID 7CSDS5HAQRRN
- **Flutter Mobile Applications Development**: University of Central Oklahoma
- **Hadoop Starter Kit**: Udemy, Issued Feb 2018, Credential ID UC-8UQHJL6Q
- **Linux Command Line Basics**: Udemy, Issued May 2017, Credential ID UC-JRAIQNG2

WORK EXPERIENCE:

Role: Research / Teaching Assistant

University of Central Oklahoma, Edmond, OK

Jan 2022- May 2023

- Conducted research for dataset creation on cyber security incident analysis and system behavior.
- Analyzed the system and network calls during vulnerability exploitation and backtracking algorithm.
- Main contributor to a research paper based on the findings of research published in IEEE (bit.ly/3sYbICr).
- Experience with shell scripting, automation, python, CWE, CVE and cybersecurity approaches.
- Developed backend service for Cybersecurity surveillance system with the Spring, GRPC, and database.

Environment: Linux, sysdig tool, AWS services, Docker, Git, Github Actions, Postgres, SpringBoot, Hibernate.

Role: Senior Software Engineer

Deerwalk Services (acquired by Cedar Gate Technologies in Dec 2020), Boston, MA

Jan 2017 – Aug 2021

- Developed a Java application for big data analytics (US Healthcare) performing data extraction, transformation and load on the Hadoop platform.
- Performed application analysis, design, development, integration, deployment, performance tune- up, documentation, debugging and support for web, client-server-based application using OOP, Java, Grails Framework, Web Services (REST, SOAP), JavaScript, HTML, CSS, AJAX, jQuery, and AngularJS.
- Used multiple framework and tools such as Hadoop, SOLR, Spark, Kafka, and Java Cascading, Maven and Gradle for dependency management and build tools.
- Used Data ETL process using cascading framework and Spark based on requirements.
- Developed rule-based data processing and transformation tool for data mapping. I improved delivery time by 30% by using the in-house syntax and removed the dependency of java code for client file.
- Developed parsers for EDI data received from clients for US Healthcare data analytics.
- Developed web application as a data mapping tool using java framework, MySQL, Angular JS, PEG parser
- Built REST APIs for connecting multiple web applications.
- Implemented Job queuing and automation of processes by using AWS SQS, AWS Lambda
- Built scripts based on python for task automation, AWS instances launch, Job execution, report generation, Data import to redshift and sprint release process automation.
- Built CI/CD using Jenkins for both web application and data mapping tool deployment.
- Used Agile methodology, Scrum meetings, and the TDD (Test Driven Development) approach.
- Develop a technical design document for the implementation based on the requirement from Business Analyst.
 - Developed UML Use case diagrams, Class diagrams, and Sequence diagrams.
 - Performed database design, analysis, data migration and workflow of the project.
- Deploy data mapping tool and test for the data quality based on data specification.
- Worked as Offshore lead to gather business requirements, participate in discussions, and support other teams.
- Involve in team meetings, brainstorming, code reviews, debugging and handover sessions.
- Debug the data issues and fix them for the data mapping tool.
- Develop strategies and scripts for database optimization using stored procedures, indexing for MySQL databases.
- Use version control tools SVN and GIT and Amazon CodeCommit for pull requests.
- Used AWS X-Ray for monitoring the performance and debugging of the web application.
 - Used AngularJs MVC framework for developing a Single Page Application (SPA).
 - Deploy and test the application using the Web logic application server.

Environment: Java, Hadoop, Cascading, Python, Spark, Grails, Angular JS, jQuery, JSON, Bitbucket, Git, Jenkins, Maven, Gradle, MySQL, AWS Redshift, EMR, AWS S3, AWS Lambda, AWS SQS, CloudWatch, REST API, Linux

Role: Web Developer

Webtech Nepal, Kathmandu (Remote)

Mar 2019– Aug 2021

- Worked as a web application developer for the projects built using Spring, Grails and Laravel.
- Performed requirement analysis, design, and development stages of Software Development Life Cycle (SDLC).
- Expertise in open-source frameworks
 - Spring 3.0, Spring Boot, Grails, Spring Web flow, JSF1.2/2.2, and ORM Technology like Hibernate 3.0 and GORM.
- Developed PHP projects based on Laravel framework having blade templates and object-oriented approach.
- Developed multiple Servers like NGINX, Apache Tomcat, IBM WebSphere, WebLogic, Sun Glassfish and JBoss.
- Knowledge and Expertise with Java Design Patterns.
 - E.g., Singleton, Session Facade, Front Controller, DAO, DTO, MVC and Business Delegate.
- Developed UI layout and widgets using AngularJS, JavaScript, HTML5, CSS3, jQuery and used JSON data format.
- Used Agile methodology, Scrum meetings, and TDD (Test Driven Development) approach.
- Used UML use case diagrams, class diagrams, and sequence diagrams for software design
- Experienced client-side development like using UI design and client-side data validation.
- Used REST APIs, Junit framework for unit testing, and Log4j for logging.
- Fluent with version control systems including git.

Environment: J2EE, IBM WebSphere, JSP, Servlets, JMS, XML, REST, DOM, JavaScript, StarUML, UML, HTML, Bootstrap, Git, Log4J, Junit, Laravel, Oracle and Windows.

Role: Software QA Engineer

Deerwalk Services, Kathmandu

Apr 2015 – Dec 2016

- Performed Business and software requirement review and validation
- Designed the test plan, test cases development, and test execution for both manual and automated approaches.
- Supported the client issues related to US healthcare data analytics and web application.
- Used comprehensive testing approaches including penetration testing, performance testing, security testing using multiple tools like JMeter, and in-house automation tools.
- Worked on SQL / NoSQL databases systems including MSSQL, MySQL, Elasticsearch queries.
- Performed configuration management of web applications using C# and Java Grails framework.
- Developed a keyword-driven QA automation tool for in-house application testing and validation using Java and Selenium.
- Developed the quality assurance tools for the data feed mainly on redshift, MSSQL and MySQL.
- Used version management tools like SVN and git for tracking test documents and requirements.

Environment: Java, Selenium, MySQL, MSSQL, Redshift, Elasticsearch, Git, QA Automation, JMeter