Mahendra Duwal Shrestha

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SUMMARY

A software engineer with 2.5 years of professional industry experience in C#, Asp.Net, Java, Grails. Proven abilities in analysis, test development and application development in both new and existing projects. 2.5 years of research experience in developing mathematical simulation programs involving cluster computations in C/C++.

OBJECTIVE

A software engineering position where I can exploit my skills and experience, and further broaden my knowledge and skills.

EDUCATION

MS in Computer Science, The University of Tennessee, Knoxville, GPA: 3.9 *2014-2017*

Major courses taken: Computer Systems Organization, Software Systems, Algorithms, Introduction to Pattern Recognition, Databases and Scripting Languages, Applied Cryptography, Distributed System Algorithms

Thesis: Efficient Simulation Of A Simple Evolutionary System

BE in Electronics and Communication Engineering, Pulchowk *2007-2011*
Engineering Campus, Tribhuvan University, Nepal, GPA: 3.8

SKILLS SUMMARY

- Programming Language: C, C++, Java, C#, Groovy, Javascript, PHP, Perl, Python
- Web Technologies: HTML5, Groovy on Grails, ASP.Net, ASP.Net MVC, Ajax, Jquery, JSON, Web services, WCF services, REST, SOAP, Hibernate, Entity Framework, LINQ, NUnit, JUnit, Spock, Spring MVC
- Version Control: git, SVN
- Databases: MYSQL, MSSQL
- Tools: Gnuplot, pthreads, CUDA, OpenMP, Hadoop, MATLAB, Visual Studio, TFS, Eclipse, IntellijIdea, Net beans, Resharper, TortoiseSVN, Emacs, Latex
- SDLC: Waterfall, Agile Scrum
- Platforms: Linux, Windows, Unix

PROFESSIONAL EXPERIENCE

Graduate Teaching / Research Assistant *, The University of Tennessee, TN* *8/2014 – 2017*

- Graded assignments and projects, and tutored for undergraduate classes 'Algorithm Analysis and Automata' and 'Software Engineering' for academic year 2014 - 2015
- Developed programs for simulations of mathematical models and plotting graphs using **C/C++** and **gnuplot** for Dr. Sergey Gavrilets in Ecology and Evolutionary Biology Department for academic year 2014 – 2017
- Used cluster computing for simulations and fixed maintenance issues in the cluster

***Software Engineer**, Deerwalk Services Pvt. Ltd., Nepal* *1/2012 – 7/2014*

- Analyzed requirement and estimated time frame working with team and clients
- Developed applications in both Windows platform and Linux platform
- Followed **OOP** paradigm and **agile** scrum methodology in application development
- Developed web applications for health care system management in US using **ASP.Net, ASP.Net MVC** and **C#** as a member of outsourcing service provider team
- Designed and developed database schema and stored procedures in **MSSQL** and used **LINQ** queries with **ASP.net MVC**
- Developed and maintained US health care system management web application modules using **Grails** framework as a member of Deerwalk's product's team
- Designed and developed database schema, scripts and stored procedures in **MYSQL**
- Led developer's team for development and optimization of generic **MYSQL** scripts for importing staged data from multiple clients into company's product's database system
- Applied **Javascript, Jquery, Ajax** in client side scripting
- Generated reports using ItextSharp in .Net framework, and using Jasper and Rendering plug-ins in Grails
- Incorporated unit testing in .Net framework using NUnit, and in Grails using JUnit and Spock
- Employed **Web services** and **WCF services** with .Net application and **REST** service with Grails application

PROJECTS

- Thesis on 'Efficient Simulation Of A Simple Evolutionary System' where we provide efficient computing methods for genetic algorithm using diploid population model and use it to analyze different behavior of genetic algorithm through simulations.
- Designed and developed mini shell system using **C** as part of requirement of graduate class
- Designed and developed program for simulation of different levels of cache and cache operations
- Used **CUDA** to develop Conway's Game of Life as part of GPU project for parallel computing
- Used OpenMP to develop parallel computing program and compare performance with serial computing program
- Developed Java programs to implement **Hadoop**'s MapReduce technique
- Implemented MPP, KNN, clustering, decision tree, neural networks using **C++** and MATLAB in pattern recognition projects
- Designed and developed implementation of case study “The University Accommodation Office Case Study” in MYSQL
- Designed and developed radio frequency linked heart beat monitor and remote data logger as part of final project in undergraduate using photo transistor transceiver, micro-controller, RF transceiver and MATLAB