MADRINA THAPA

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Education

Master of Science in Computer Science	Aug 2016 - May 2018
Indiana University, Bloomington	
Bachelor of Engineering - Computer Science and Engg.	Aug 2009 - May 2013
Government College of Technology, Coimbatore, India	

Work History

Software Engineer Intern - UITS, Indiana University   June 2017 - Present

ASP.NET Core, C#, Docker, React.js, Swagger

- Developed an API for managing print services - print credits, account deposit, refund and balance lookup used across 8 campuses of Indiana University by 130,000 Faculty, Staff and Students.
- Created a message queue microservice for facilitating the communication between processes.

.Net and Powershell Developer - UITS, Indiana University   Dec 2016 - June 2017

C#, .Net MVC framework, Microsoft SQL Server, SharePoint Online, jQuery, PowerShell

- Developed and deployed new features like audit trail, requesting a new group or account on Office 365 for the application.
- Developed Powershell scripts for connecting active directory with Azure active directory.

Senior Software Engineer - Mindfire Solutions   Oct 2015 - Jun 2016

ASP.Net 4.5, C#, jQuery, CSS, HTML, SQL Server 2012, Visual Studio 2013, TortoiseSVN

- Created a tool for tracking blood pressure, cholesterol and blood sugar levels and automatically graphing the data for comparison using Highcharts API.
- Digitized and indexed all the medical records of a person into an easy to read and user-friendly format in strict HIPAA compliance.

Software Engineer - Mindfire Solutions   Aug 2013 - Oct 2015

ASP.Net 4.5, C#, jQuery, CSS, HTML, SQL Server 2012, Entity Framework 5.0

- Redesigned payment module resulting in improved vendor experience; average usability ratings increased by 2 points on a 10-point scale.
- Created user module, where a user can create a new proposal, add required products, design the proposal and either print or save the final report on the cloud using several available templates, integrated Google APIs into the application.

Projects

Amazingly Local - Java 7, Spring 3.0, jQuery, AJAX , MySQL, JSP, and Bootstrap

- Built an online marketplace for locally grown products. Extended administrative functionality to view detailed reports of vendor profits, buyer reports and traffic statistics. Agile Software development process was followed for building the web application.

Green Thumb - Android, Java, Firebase, Node.js, Arduino, Python

- Developed an Android application for comprehensive monitoring of plants health parameters using sensors and alerting the users in real-time. Implemented community garden search using Google Maps and provided people a platform to share and track garden related tasks.

Static Vs Adaptive Huffman Coding - C++

- Implemented both the Static and Adaptive Huffman coding in C++ and observed a difference in their execution time that is the time it takes for both compression and decompression, and the size of the compressed file.

Kernel Programming in Xinu Operating System - C

- Implemented in memory file system for XINU with standard file system primitivesDevised a shared memory Inter-Process Communication (IPC) in XINU using UDP to establish a network communication between the XINU and Virtual Machine.

Movie Fortune Teller - Python
- Developed Multilinear regression model for predicting the success of a movie. Best hyper-parameters were determined through 10-fold Cross Validation.

Skills

Programming Languages

█████████

C++, C, C#, Java and Python

Web Technologies

█████████

AJAX, HTML5, CSS3, Bootstrap, JavaScript, JQuery, AngularJS, Node.Js, React.js, Swagger, Web Services, REST API, Firebase.

Databases

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Microsoft SQL Server, and MySQL

Frameworks

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NET4.0/4.5, Entity Framework (EF), Spring,

and Spring Boot

Others

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TortoiseSVN, Git, Jira, Assembla, TeamCity and Docker.

Certification

Web Applications Development with Microsoft .NET Framework 4 (2014) - MC ID: 10703235.

Portfolio

madrinathapa.github.io

Relevant Coursework

- Algorithms Design and Analysis
- Advanced Operating Systems
- System and Protocol Security
- Software Engineering
- Pervasive Computing

Activities

- Participated in AT&T IoT Civic Hackathon, Indianapolis, IN (2017).
- An active member of Women In Computing Community at Indiana University, Bloomington.
- Awarded funding by Indiana University, School of Informatics and Computing to attend The Grace Hopper Conference, Orlando, FL (2017) .