**Simron Thapa**

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**EDUCATION**

**PhD in Computer Science** GPA: 3.9, **Aug 2017 - Present**

**MS in Computer Science** GPA: 3.89, **Aug 2015 - Aug 2017**

**Louisiana State University, Baton Rouge, Louisiana**

Courses**:** Interactive Computer Graphics, Scientific Analysis and Visualization, Machine Learning, Artificial Intelligence, Data Mining, Programming Language Structures, Distributed Systems, Advanced Algorithms

**BE in Computer Engineering** GPA: 4.0, **Dec 2013**

**Tribhuvan University, Kathmandu, Nepal**

Courses: Data Structures, Cloud Computing, Computer Graphics, Software Analysis and Design, Algorithms

**EXPERIENCE**

**Course Instructor Jan 2018 - Present**

**Louisiana State University, Baton Rouge, LA**

* Design syllabus and teach Programming Digital Media at Louisiana State University

**Research Assistant/ Teaching Assistant Aug 2015 - Present**

**Louisiana State University, Baton Rouge, LA**

* Scientific tool development for analysis and visualization of positional datasets generated by Molecular Dynamic Simulations. Major concept used: Data Mining, Machine Learning and 3D Computer Graphics.
* Assist/Grade lectures and labs of Object Oriented Programming, MatLab, Interactive Computer Graphics, Data Structures, and, Artificial Intelligence.

**Web Master Aug 2015 - Present**

**Louisiana State University, Baton Rouge, LA**

* Design, develop, manage and maintain the Computer Science and Engineering webpage of LSU.

**Core Graphics Intern**   **Aug 2017- Mar 2018**

**TEDXLSU, Baton Rouge, LA**

* Design and develop the advertisement media and animation videos and posters/flyers regarding TEDxLSU event.
* Usage of language and tools like Processing, Adobe Flash Professional CS5, Canva, and Photoshop.

**Software Engineer**  **Jan 2015- Jul 2015**

**Deerwalk Inc., Lexington, MA and Kathmandu, Nepal**

* Designed and developed modules in Java/Groovy that reads the data from Web-Services (RESTful Services). Front-End full-stack development of the application in Grails framework and User Interface implementation in Javascript/jQuery. Data Visualization done using Highcharts and D3.js.
* Data Analytics provided integrated informatics and actionable healthcare data, which supports period-to-period comparisons and trend analysis. Developed reporting, and search modules based on US healthcare data and implemented its exports using various APIs (Dynamic Jasper and Aspose Report).

**Associate Software Engineer/ Trainee**  **Nov 2013- Jan 2015**

**Deerwalk Inc., Lexington, MA and Kathmandu, Nepal**

* Analyzed existing codebase in Java/Groovy. Bug fixes. Ensured that the quality meets the requirements and the implementation was complete within the deadline.

**SKILLS**

**Languages:** Proficient: Java, C++, PL/SQL, SQL, Shell Scripting; Prior Experience: C, C#, R, Sed, Awk

**Graphics libraries/Tools:** OpenGL, WebGL, THREE.js, Processing (P5.js), Wings3D, Unity, Photoshop

**Web:** JSP, JSF, Servlets, Bootstrap, PHP, REST, JSON, XML, DOM, JavaScript, JQuery

**SDLC/Documentation:** Agile/Scrum, UML, LaTeX   
**Platforms/ Frameworks:** Windows, UNIX/Linux, Spring, Groovy in Grails, Elastic-search, Hadoop/MapReduce

**Others:** Design Patterns, Unit Testing, MVC, Git, SVN, Maven, Jira

**PROJECTS**

**Interactive Web-Based Visualization of Atomic Position-Time Series Data, LSU Aug 2017**

* Poster Presented at American Geophysical Union Fall Meeting, December 2017

**Web-based Image Processing and Game Development** **Oct 2015- July 2016**

* Designed Bug-squish game (p5.js/tone.js/Arduino), Image processing in 3D object (WebGL and Wings3D)

**Linux Shell Implementation**  **Dec 2016**

* Implemented core Linux concepts like pipe and redirection and used various system calls by developing a C shell (independent project)

**Facial Sentiment Analysis using IBM Bluemix Jan 2016**

* Used predictive algorithms to analyze 4 emotions (Happy, Sad, Surprised, and Angry) from images/live videos.

**Plan Analytics, US Healthcare Data Analytics, Deerwalk Inc.** **Nov 2013- Jul 2015**

* Developed a US medical data analyzing application, with risk identification. It supported period-to-period comparison of data and did trend analysis.

**Report Manager, US Healthcare Data Analytics, Deerwalk Inc.** **Nov 2013- Jul 2015**

* Reporting application developed for cross application report exchange. RestAPI widely explored and the reports generated in Microsoft Aspose and Dynamic Jasper.

**Android Application Development: Guru Chela, Kathmandu Engineering College May 2013- Aug 2013**

* A college application for Student Teacher file sharing. Used Dropbox API for big files. Top features included AI Chatbot as a help for some CS course, Event Manager, Attendance Tracker, and Crowd Sourcing.

**HONOURS AND ACTIVITIES**

* Awarded with Programmer of the Year 2014, Deerwalk Inc. (>300 employees)
* Microsoft Student Partner (MSP), Microsoft Innovations, Nepal
* Outstanding Student Award in Computer Engineering (2010 – 2013), KEC,Tribhuvan University (>85 students)
* Membership Officer, Women in Computer Science at LSU
* Web Coordinator, Nepalese Student Association at LSU
* Graduate Senator, Student Government at LSU
* Member, Society of Women Engineers (SWE)
* Member, American Geophysical Union (AGU)
* Member, Kappa Delta Honors Society