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