Sulav Malla

Department of Computer Science and Engineering
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EDUCATION

Ph.D. in Computer Science and Engineering   **Tampa**
University of South Florida   *2015–2020 (expected)*
Advisor: Dr. Ken Christensen

M.S. in Computer Science   **Tampa**
University of South Florida   *2015–2017*

Bachelor's in Electronics & Communication Engineering   **Nepal**
Institute of Engineering, Tribhuvan University   *2009–2013*

RESEARCH

My research interest is in the area of power management of data centers. I am investigating safe oversubscription of power infrastructure and power overload prediction in data centers.

PUBLICATIONS

1. **S. Malla** and K. Christensen, "Choosing the Best Server for a Data Center: The Importance of Workload Weighting," accepted in *IEEE International Performance, Computing, and Communications Conference*, November 2018.

2. **S. Malla** and K. Christensen, "A Survey on Power Management Techniques for Oversubscription of Multi-Tenant Data Centers," to appear in *ACM Computing Surveys*, August 2018.

3. **S. Malla** and K. Christensen, "Reducing Power Use and Enabling Oversubscription in Multi-Tenant Data Centers Using Local Price," *Proceedings of the IEEE International Conference on Autonomic Computing*, pp. 161-167, July 2017.

TEACHING

Instructor
University of South Florida   *Summer 18*
Taught the course *Program Design* which introduces students to the C programming language

Teaching Assistant
University of South Florida   *Fall 15&16, Spring 16, Summer 17*
Courses: Computer Networks, Computer Architecture, and Human Computer Interface

EXPERIENCE

Research Assistant
University of South Florida   *2016–Present*
Assist Dr. Ken Christensen and Dr. Rafael Perez with Florida IT Pathways to Success (Flit-Path) project funded by National Science Foundation

ICT Volunteer
Kathmandu Metropolitan City Office, Nepal   *July 2014–June 2015*
Support the local government office in the field of Information and Communication Technology

Content Creator
www.programiz.com   *November 2013–July 2015*
Wrote the entire Python and R tutorial (140+ pages)

AWARDS AND LEADERSHIP

Da Vinci Scholarship
College of Engineering at University of South Florida   *2018–2019*

EXPO Chair
Tau Beta Pi, FL Gamma chapter   *2018–2019*

Spirit of Innovation Scholarship
College of Engineering at University of South Florida   *2017–2018*

President
Nepalese Student Association (NeSA) at University of South Florida   *2017–2018*

Merit Scholarship
Institute of Engineering at Tribhuvan University   *2009–2013*

NOTABLE PROJECTS

o **Data Mining Class Project:** *"Deep Feature vs Traditional Feature for Bone Texture Characterization"*
   Compared deep features extracted from convolution neural network against traditional texture features for identifying osteoporosis cases from bone x-ray images.
   Tools used: Weka, MatConvNet in MATLAB, Java

o **Advanced Databases Class Project:** *"A Faster Parallel Algorithm for Analyzing Drug-Drug Interaction from MEDLINE Database"*
   Implemented a parallel multi-threaded random-sampling-based algorithm to automatically identify Drug-Drug Interaction by reading the substance field of MEDLINE records.
   Tools used: C++, OpenMP, Python

TECHNICAL SKILLS

o **Programming Languages:** Proficient in C, C++, Java, R, Python, MATLAB, Octave, Processing, HTML, PHP, CSS, JavaScript, SQL, LaTeX.
   Also basic knowledge in Search Engine Optimizations.

- **General Software Skills:** Well versed in MS Office softwares as well as in all three major OS platforms, Linux, Mac, and Windows.
- **Other skills:** Good in probability and statistical modeling, can write clear and well organized reports with high quality graphs.

COURSES TAKEN

- **Graduate**: Machine Learning, Data Mining, Data Visualization, Advanced Databases, Theory of Algorithms, Operating Systems, Computer Networks, Network Security, Computer Architecture.
- **Undergraduate**: C, C++, Digital Signal Processing, Computer Graphics, Digital Logic, Discrete Mathematics, Probability and Statistics, Database Management System, Image Processing and Pattern Recognition, Speech Processing.

REFERENCES

Ken Christensen
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Rafael Perez
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