Pradeep Bajracharya

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Research Interest Bayesian active learning, Uncertainty Quantification, Deep learning and Machine Learn-

ing

2018 - Present Education PhD in Computing and Information Sciences

Rochester Institute of Technology, Rochester, NY, USA

Advisor: Dr. Linwei Wang Research Group: CBL Lab

Relevant Courses: Deep Learning, Image Processing and Computer Vision, Proba-

bility, Noise System Modeling

Bachelor in Electronics and Communication Engineering, 2011 - 2015

Pulchowk Campus, Tribhuvan University, Nepal

(82.97%) Distinction

Relevant Courses: Probability and Statistics, Numerical Methods, Mathematics I, II, III, IV, Computer Programming I, II, Signal Analysis, Image Processing and Pattern

Recognition

Scholarships & Awards

RIT Ph.D. Merit Scholarship, Financial assistance for

Aug 18 - Present

Ph.D. studies at Rochester Institute of Technology

Prof. F.N. Trofimenkoff Academic Achievement Award 2016

for graduating top of the class (2015) in BE Electronics and Communications Engineering

Ncell Scholarship and Excellence Award, of NRs. 100,000 was 2015, 2016 awarded to top student of BE Electronics and Communications, Electrical and Communication, and Computer

The College Fellowship Scholarship, in various semesters (viz. 2011 - 2015 Years/Semesters I/I, I/II, II/II, III/II, III/II, IV/I) and and Full-fee scholarship in semester I/II

Techinical Skills

Languages: Python, C++, C Tools/Framework: Matlab

Deep Learning Tools: PyTorch, Basic Tensorflow, and Keras

Database: MySQL, MongoDB

Familiar: Symfony, Laravel, PHP, Javascript, HTML, CSS, NodeJS

Miscellaneous: Git, LATEX, Object Oriented Programming

Conference Article

Ligal, P. S., Acharya, B., Bajracharya, P., Shrestha, P., Pokharel, P., Ghimire, S. K.

Indoor Odometry and Point Cloud Mapping. Proceedings of IOE Graduate Conference, 2017

Experience Research Assistant Jun 19 - Present

Computational Biomedicine Lab

Rochester Institute of Technology, NY, US

Research area: Bayesian active learning and its use for uncertainty quantification in multiscale multi-physics models; Deep learning and Machine Learning

Teaching Assistant

Aug 18 - May 19

Imaging Science Department

Rochester Institute of Technology, NY, US

Senior Developer

Aug 16 - June 18

Kazi Studios, Bhanimandal, Lalitpur, Nepal

Development of Web based solutions, and CRM systems including medical inventory system, and tourism portals. Also worked on smart home system controlled via android, and IOS platform.

Teaching Assistant

April 16 - Aug 16

Department of Electronics and Computer Engineering Pulchowk Campus, Tribhuvan University, Nepal

System Engineer

Nov 15 - April 16

E&T Nepal Pvt. Ltd., Lokanthali, Bhaktapur, Nepal

Development of Calculation Solver for CFD simulation with CUDA on NVIDIA GPUs for simulation software "MUJO"

Collaboration Project Internship

May 14 - Dec 14

E&T Nepal Pvt. Ltd., Lokanthali, Bhaktapur, Nepal

Took on project named High Speed Data Transfer to make the existing data transfer faster.

Projects

Blindness Assistive tracing Band

Aug 2015

Hardware interface with LiDAR and camera to trace environment for visually impaired person

- Technology/Tools: C in Arduino
- Role: Programmer and Hardware designer and developer (in team of 4)

3D Scanning and Odometry

Nov 2014 - Aug 2015

Hardware based project that scans the surrounding using LiDAR (Light Detection and Ranging) and creates 3D map after scanning. Mapping and Visualization is implemented using Point Cloud Library for filtering and segmentation.

- Technology/Tools: C/C++ in Arduino and Qt Creator with OpenGL
- Role: Programmer and Hardware designer developer (in team of 4)

High Speed Data Transfer

May - Dec 2014

High Speed Data Transfer (HSDT) is a project for increasing the data transfer speed of existing network infrastructure in collaboration with E&T Nepal Pvt. Ltd. It implemented new transport layer protocol named UDT.

- Technology/Tools: C++ in Visual Studios 2012
- Role: Programmer and Team Lead (in team of 2)

Ethernet based Home automation

May - Aug 2014

A Web interface, created in HTML, that allows the user to control various household appliances linked via the Ethernet network through any web based consumer electronics.

- Technology/Tools: C in Atmel Studio, HTML
- Role: Programmer and Hardware designer and developer (in team of 4)

Certification

- Neural Networks and Deep Learning by deeplearning.ai on Coursera Verify: coursera.org/verify/3MPX68UEQPTL
- Bayesian Methods for Machine Learning by National Research University Higher School of Economics on Coursera Ongoing

Professional Service

- Head Designer for "Locus Journal" magazine (a tech magazine focusing on the latest in technology and research paper from students) for LOCUS Technological Festival, Pulchowk Campus, Tribhuvan University, Nepal (2015)
- Co-editor Magazine for Rotaract Club of Lalitpur, Nepal covering different events

organized throughout the year (2014/2015)

- Stage Management Coordinator Candle Walk 1135, an annual event organized every year by the Rotaract Club of Lalitpur, Nepal on the festival of Tihar (Oct 2014)
- \bullet Head Designer for the first issue of "Graphene" magazine, a tech magazine focusing on the latest in technology (2012)

Additional Activities

- Technician Level Amateur License Holder in Nepal (2016 Present)
- Technician Level Amateur License Holder in USA (2019 Present)
- \bullet Volunteering experience at LOCUS Technological Festival, Pulchowk Campus, Tribhuvan University, Nepal.