# Pradeep Bajracharya

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**Education**

**PhD in Computing and Information Sciences** **2018 - Present**
Rochester Institute of Technology, Rochester, NY, USA (3.92/4.00) GPA
**Advisor**: Dr. Linwei Wang
**Research Group**: CBL Lab
**Relevant Courses**: Deep Learning, Statistical Machine Learning, Image Processing and Computer Vision, Probability and 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, Image Processing and Pattern Recognition

**Scholarships & Awards**

**AWS Machine Learning Scholarship** **2021**
for AWS MLE Foundations course Nanodegree Program by Udacity and Amazon AWS

**Prof. F.N. Trofimenkoff Academic Achievement Award** **2019**
for graduating top of the class (2015) in BE Electronics and Communications Engineering

**RIT Ph.D. Merit Scholarship**, Financial assistance for Ph.D. studies at Rochester Institute of Technology **Aug 18 - Present**

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

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

**Techinical Skills**

**Languages :** Python, C++, Matlab
**Deep Learning Tools :** PyTorch, Basic Tensorflow, and Keras

**Journal Article**

**Embedding High-dimensional Bayesian Optimization via Generative Modeling: Parameter Personalization of Cardiac Electrophysiological Models**
Dhamala, J., **Bajracharya, P.**, Arevalo, H. J., Horcek, B. M., Wu, K. C., Trayanova, N. A., Wang, L. *Medical Image Analysis (MedIA), 2020*

**Conference Article**

**Semi-supervised Medical Image Classification with Global Latent Mixing**
Gyawali, P. K., Ghimire, S., **Bajracharya, P.**, Li, Z., Wang, L. (2020). Semi-supervised Medical Image Classification with Global Latent Mixing. arXiv preprint arXiv:2005.11217.
*Medical Image Computing and Computer Assisted Intervention(MICCAI), 2020*

**Indoor Odometry and Point Cloud Mapping** 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 research project named High Speed Data Transfer to make the existing data transfer faster.

**Extra Projects**

**Gesture recognition for understanding American Sign Language**
A deep learning based implementation of gesture recognition on Kaggle MNIST dataset and Kaggle dataset for ASL Alphabet to understand the gesture hand shapes signed in front of a camera.

- **Tools:** Keras and OpenCV

**Certification**

• **Neural Networks and Deep Learning** by deeplearning.ai on *Coursera*
*Verify : coursera.org/verify/3MPX68UEQPTL*
• **Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization** by deeplearning.ai on *Coursera*
*Verify : coursera.org/verify/BGCCNBWNM5LY*
• **Build Basic Generative Adversarial Networks (GANs)** by deeplearning.ai on *Coursera*
*Verify : coursera.org/verify/4LNV43GKRDUM*
• **Bayesian Methods for Machine Learning** by National Research University Higher School of Economics on *Coursera*
*Ongoing*