KHEM NARAYAN POUDEL Murfreesboro, TN, 37130 | 801-712-7990 | knparjun @gmail.com | Website

Seeking full time Data Scientist, Software Developer, Machine Learning Engineer, RF/System Engineer position where I can apply my skill sets on Data science, ML algorithms, Computational Electromagnetics, Antenna design and my hands-on research and project experiences.

PROFESSIONAL SKILLS

Data Science Tools: R, Python, Tableau, Power Bi, MSSQL, Hadoop, Cloudera, Pig, Hive, HBase, Git, HTML, Js, PHP, Java, ETL (Talend open Studio for data integration), MongoDB, Casandra,
Deep Learning Packages: TensorFlow, Keras, Maxnet, NLTK, ScikitLearn, NumPy, Pandas, SciPy,
RF Electromagnetics: CST Microwave studio, HFSS, FDTD , Comsol Multiphysics, Cadence, ADS, Meep,
RF Measurement Tools: Spectrum Analyzer, Network Analyzer, Oscilloscope, Signal Generator, Time Domain Spectroscopy,
Computational Tools: MATLAB, Mathematica, Maple 11, C, C++,Fortran, MPI, OPENMP, Cuda,
Networking Tools: CCNA, Packet Tracer, Firewall, Router, Switch

EDUCATION AND CERTIFICATIONS

Ph.D. in Computational Science, Candidate | Middle Tennessee State University, TN (Expected December 2019) | GPA:4.0
Master of Science in Computer Science | Middle Tennessee State University, Murfreesboro, TN (2019) | GPA:4.0
Master of Science in Electrical and Computer Engineering | University of Utah, Salt Lake City, UT (2016) |
MSC in Information and Communication Engineering | Tribhuvan University, Kathmandu (2013) | GPA:4.0
Bachelor of Engineering in Electronics and Communication Engineering | Tribhuvan University (2010) | GPA:4.0
HADOOP Certification | Linked in Learning
Building Deep Learning with Keras and TensorFlow Certification | Linked in Learning and Udemy Lazy programmer
CCNA Certification | 2010
Advanced CISCO Routing | 2019 | Linked in Learning
Tableu | 2019 | Linked in Learning
Learning R |2019 | Linked in Learning

EXPERIENCE

MIDDLE TENNESSEE STATE UNIVERSITY, MURFREESBORO, TN **January 2017- present**
Graduate Research Assistant

- Predictive modelling and data analytic in Second Harvest Project with MTSU Data Science Institute.
- Phonocardiography data compression using discrete wavelet transform, machine learning (TensorFlow).
- Work Flow Optimization of Cloud Computing for Big Data Applications using Java and python.
- Characterization of oils and oil mixtures using Terahertz Time-Domain Spectroscopy and Matlab.
- Computational modeling of maximum length sequence multilayer and grating structure using COMSOL.

Teaching Assistant

- Instructor for Astronomy Lab, Computer science orientation (HTML, CSS, JS, Microsoft Excel) and Computer Language Java, CSCI 3033.

UNIVERSITY OF UTAH, SALT LAKE CITY, UT **August 2014- January 2017**
Graduate Research/Teaching Assistant, Advanced antenna Lab

- Design of crime scene investigation system to investigate the wireless channel state information using CST.
- Single plane Transceiver arrays for Massive MIMO Communication using CST and Matlab.
- Teaching lab for Introduction to Electromagnetics and Transmission line, and supervising student on Senior Thesis.

TRIBHUWAN INTERNATIONAL AIRPORT, KTM, NEPAL **December 2006 – August 2014**
System Engineer

- Responsible for designing, installing, maintaining of networking (CISCO router, switch, firewalls).
- Analyze the traffic data using data visualization tools (R, Python, Tableau) and maintaining SQL Server.
- Responsible for designing, installing of RF and Antenna for communication, navigation and Radar in air traffic control system.

TRIBHUWAN UNIVERSITY, KTM, NEPAL **February 2010- August 2014**
Senior Lecturer and Academic Coordinator

- Conducting research and lecture class for electromagnetics, communication system, signal processing, propagation and antenna system, C, C++, computer network. CCNA instructor.

HONORS & PROFESSIONAL SOCIETIES

Reviewer

- ACM South East Conference 2018
- IEEE APS/URSI 2019, Session chair
- The Second International Conference on Mechanical, Electric and Industrial Engineering (MEIE2019)

Graduate student advisory council member at U of U ECE department, vice president: IEEE Utah student chapter (2016)
Full Tuition Waiver: PHD/MS/B.E
Travel Grant, Security Encryption Workshop, organized by Brown University, May 2019
President of Robotics club, Kathmandu Engineering College, Nepal (2009)
Undergraduate , 1st Rank student among 2500 student, 2010

PUBLICATIONS

1. **K. N. Poudel**, D. Schurig and N. Patwari, "Spatial imaging using a communication system's channel state information," 2016 USNC-URSI Radio Science Meeting, Fajardo, 2016, pp. 41-42.
2. **K. N. Poudel**, David Schurig, Neal Patwari, "Security Imaging Using Wifi based Channel State Information", Annual Conference | Utah Academy of Science Arts and Letters, 2016, UT.
3. **K. N. Poudel** and S. Pokhrel FDTD: A Powerful Tool In Computational Electromagnetics, Annual Conference | Utah Academy of Science Arts and Letters, 2016, UT.
4. **K. N. Poudel** and W. Robertson, "Metamaterial inspired antenna design for massive MIMO, 5G communications system," 2017 USNC-URSI Radio Science Meeting (Joint with AP-S Symposium), San Diego, CA, 2017, pp. 103-104.
5. **K. N. Poudel**, V. Koju and W. Robertson, "Frequency selective surfaces for microwave frequency band applications," 2017 USNC-URSI Radio Science Meeting (Joint with AP-S Symposium), San Diego, CA, 2017, pp. 15-16.
6. **K. N. Poudel** and William M. Robertson, "Maximum length sequence dielectric multilayer reflector," OSA Continuum 1, 358-372 (2018).
7. **K. N. Poudel**, Y. Gu, Time and Cost Optimization in Cloud Computing for Big Data Applications. ACM Mid-Southeast Conference, 2018.
8. **K. N. Poudel** and W. M. Robertson "Bloch surface wave excitation using a maximum length sequence grating structure", Proc. SPIE 10914, Optical Components and Materials XVI, 109140K (27 February 2019).
9. M. Chowdhury, **K. Poudel** and Y. Hu, "Phonocardiography Data Compression using Discrete Wavelet Transform," 2018 IEEE Signal Processing in Medicine and Biology Symposium (SPMB), 2018, Philadelphia, PA.
10. M. Chowdhury, **K. Poudel** and Y. Hu, "Phonocardiography Data Compression Using Discrete Wavelet Transform," 2018 IEEE Signal Processing in Medicine and Biology Symposium (SPMB), Philadelphia, PA, 2018, pp. 01-03.
11. **K. N. Poudel** and W. Robertson, " Characterization of Oils and Oil Mixtures using Terahertz Time-Domain Spectroscopy," 2019 USNC-URSI Radio Science Meeting (Joint with AP-S Symposium), Atlanta, GA, 2019.
12. **K. N. Poudel** and M.Pant, " Wireless Power Transfer for Medical Implants," 2019 USNC-URSI Radio Science Meeting (Joint with AP-S Symposium), Atlanta, GA, 2019.
13. **K. N. Poudel**, Performance analysis of ATC radar using pulse compression techniques, KEC Journal of science and engineering, June 2013, Vol.1.

In Progress

14. M. Chowdhury, **K. Poudel** and Y. Hu, " Time-Frequency Analysis and Classification of PCG Signals, "IEEE Access 2019.
15. **K. N. Poudel**, Y. Gu, Time and Cost Optimization in Cloud Computing. 2019 IEEE International Conference on Big Data (BigData 2019).
16. **K. N. Poudel** and W. M. Robertson "Bloch surface wave excitation using a maximum length sequence grating structure", IEEE Access,2019.