PERSONAL INFORMATION

Dhiraj Neupane

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https://scholar.google.com/citations?user=KtSkA68AAAAJ&hl=en

https://www.er-dhiraj.com.np/

Gender Male | Date of birth 30/04/1995 | Nationality Nepalese

PERSONAL STATEMENT

- I am a highly energetic and self-motivated person possessing a go-getter attitude with a demonstrated history of working in IT and finance companies, and the university research center.
- Strong engineering professional skilled in machine learning and deep learning, image processing and computer vision, big data analysis, and intelligent fault detection
- I am looking forward to suitable and exciting career opportunities to contribute maximum with my skills and knowledge and create a solid base for my career.

WORK EXPERIENCE

05 Oct 2022 – Present

PhD Research Student

School of IT, Deakin University, Waurn Ponds Campus (Australia)

- Research on Machinery Fault Detection using machine learning approaches

01 Sept 2021 – 31 Aug 2022

Researcher

IPCamp, Jinju-Si (South Korea)

- Object detection algorithm for Disability Badge Holders' Parking Management System
- Development of face recognition and safety products detection system
- Working with Computer Vision, Object Detection, Deep Learning, IP Camera, LED Modules, LED Matrix Board, Arduino
- Troubleshooting and solving the technical problems

04 Mar 2019 – 21 Feb 2021

Graduate Research Assistant

Changwon National University, Changwon-Si (South Korea)

- Carry out ML and DL related project experiments
- Prepare technical documentation and write research papers
- Mentor undergraduate students project activities
- Manage lab resource

22 Apr 2018 – 12 Feb 2019

Operation Assistant

Nepal Electronic Payment Systems Limited, Kathmandu (Nepal)

- ATM and PoS testing and monitoring
- Testing all the possible issues before the ATM or PoS service was established
- Working in Putty and SSH
- Transactions monitoring, troubleshooting the technical problems and solving them

17 Oct 2016 – 13 Apr 2018

Secondary-Level School Teacher

Shree Marigold Academy Vidhya Mandir, Kailali (Nepal)

- Full-time teacher for secondary level Mathematics, Science and Computer Science subjects

15 Aug 2016 – 04 Sept 2016

Internship

Subisu Cablenet Pvt. Ltd., Baluwatar, Kathmandu (Nepal)

- Learned about GPON Architecture and Cable net Architecture

EDUCATION AND TRAINING

Oct 2022 – Present

Ph.D. in Information Technology

Deakin University, Waurn Ponds, VIC, Australia

- **Research in Machinery fault Detection using machine learning approaches**
- **Deakin University post-graduate research scholarship**

Mar 2019 – Feb 2021

M.S. in Information and Communication Engineering

Changwon National University, Changwon-Si (South Korea)

- **Full Scholarship and Graduate Research Assistantship**
- **Higher Distinction**

Aug 2012 – Aug 2016

B.E. in Electrical and Electronics Engineering

Kathmandu University, Dhulikhel, Kavere (Nepal)

July 2010 – June 2012

Higher Secondary Education (10+2)

St. Xavier's College, Maitighar, Kathmandu (Nepal)

2009/10

School Leaving Certificate (SLC)

Mount Saipal International Academy, Tikapur, Kailali (Nepal)

- Batch Topper

GRANTS AND ACHIEVEMENTS

2022- 2025

Deakin University Postgraduate Research Scholarship (DUPRS)

School of IT, Deakin University, Waurn Ponds, VIC, Australia

2019-2021

Full Scholarship student

Department of Information and Communication Engineering, Changwon National University, South Korea

2021

Higher Distinction in MS degree

2019

Sejong University Industry-Academic Cooperation Grant

Sejong University, South Korea

2010

School Topper in National-Level SLC (School Leaving Certificate) Exam

WORKSHOPS AND CONFERENCES

21-23 October 2020

ICTC2020- International Conference on ICT Convergence

Jeju, South Korea

LANGUAGE PROFICIENCY TEST

19 May 2022 **Pearson Test of English (PTE)**

Overall: 68 Listening: 71 Reading: 63 Speaking: 60 Writing: 75

PERSONAL SKILLS

Mother Tongue(s) **Nepali** [Native]

Foreign Language(s)

English [Proficient User]

Hindi [Proficient User]

Korean [Basic User]

Computer Skills

- **Programming:** Python, MATLAB, C#
- **Application Software:** MS-Office, LaTeX, Arduino, Simulink, MULTISIM, Putty
- **Operating System**: Windows, Linux
- **IDE:** Jupyter notebook, Spyder, PyCharm, Visual Studio
- **Python Libraries:** Keras, Tensorflow, OpenCV, Pandas, NumPy, Scikit-learn, Matplotlib
- **Familiar With:** C/C++, Java, Android Studio, MacOS, MySQL, PyTorch

Additional Skills

- Strong interpersonal skills and ability to deal effectively in a team environment
- Skill in organizing resources and establishing priorities
- A good Analyst
- Developed the ability to produce reports and presentations of a professional standard
- Punctual, confident, attentive to details, organized, cooperative, patient, analytical, logical, and a problem-solver

ORGANIZATIONAL AND MANAGERIAL SKILLS

2015 – 2016 President of Society of Electrical and Electronics Engineers (SEEE), Kathmandu University

2014 – 2015 Joint- Secretary of Amnesty International Kathmandu University Youth Network (AIKUYN)

2013 – 2014 Executive Member of Amnesty International Kathmandu University Youth

ADDITIONAL INFORMATION

Projects Undertaken

Graduate Projects:

- Machinery Fault Detection using Switchable Normalization-based CNN (SN-CNN) [2020 - 21]
- Machinery Fault Detection using Deep Learning (1-D CNN and 2-D Illustration of Time-Sequence) [2020]
- Sonar Target Detection using CNN [2019]
- Face Recognition using Multi-Task CNN [2019]

Undergraduate Projects:

- Performance Analysis of Multi-Mode Fiber (MMF) [2016]
- Microcontroller-based Token Number with Announcement and Wireless Display [2015]
- Design and Fabrication of Digital Tachometer [2014]
- Design and Fabrication of Clap Controlled Switch [2013]

Publications

Journal and Conference Papers:

- "Bearing Fault Diagnosis and Detection using Case Western Reserve University Dataset with Deep Learning Approaches: A Review" [Published in IEEE Access;
  DOI: 10.1109/ACCESS.2020.2990528]
- A Review on Deep Learning-Based Approaches for Automatic Sonar Target Recognition" [Published in Electronics;
  DOI: 10.3390/electronics9111972]
- "Bearing Fault Detection Using Scalogram and Switchable Normalization-Based CNN" [Published in IEEE Access;
  DOI: 10.1109/ACCESS.2021.3089698]
- "CNN-Based Fault Detection for Smart Manufacturing" [published in Applied Sciences
  DOI: doi.org/10.3390/app112411732]
- "Deep Learning-Based Bearing Fault Detection Using 2-D Illustration of Time Sequence" published in ICTC2020- International Conference on ICT Convergence 2020
  DOI: 10.1109/ICTC49870.2020.9289232]

Certificates

- Course completion certificate for completing the course "Research ethics for graduate students (Science and Engineering)" taken by Korea Institute of Human Resources Development in Science & Technology on 12 April 2020.
- Certificate of Reviewing awarded by Applied Soft Computing Journal in the recognition of the review contributed to the journal on October 2021.
- Course completion certificate for completing the course "Introduction to Computer Vision and Image Processing" by Coursera on March 3, 2022.

Field of Interest

Machine Learning and Deep Learning, Intelligent fault diagnosis, Object detection and Classification, Sonar target detection, Big Data, Computer Vision

Personal Interest

Trekking and Traveling, Stock Market, Literature, Music

REFERENCES

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