

Sudip Tiwari Bishwakarma / सुदिप तिवारी विश्वकर्मा

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[SudipBishwakarma.github.io](https://github.com/SudipBishwakarma) | linkedin.com/in/SudipBishwakarma

EDUCATION

Kathmandu Jazz Conservatory

Nov 2024 – Present

Private Guitar Lesson

This curated program incorporates music theory, composition, arranging, improvisation and audio production.

London Metropolitan University. Islington College, Kathmandu

Apr 2019 – Dec 2021

M.S. in Information Technology

Classification: Pass with Distinction, 77.22%

Thesis: [Using Machine Learning in Stock Prediction and Quantitative Trading: A Context in Nepal](#)

Project: Designing Data Warehouse for Analytics

Designed a Star schema and implemented a data warehouse capable of ingesting data from relational tables, performing transformations and loading to dimension and fact tables.

London Metropolitan University. Islington College, Kathmandu

Jan 2014 – Nov 2015

B.S. in Computing

Classification: Lower Second Class Honours, 56%

Final Year Project: What's That?

Developed an augmented reality Android app capable of recognizing images and overlaying interactive content when a user hovered their cellphone over the image.

Informatics Academy. Islington College, Kathmandu

Jan 2010 – Sep 2012

Diploma

Year 2: International Advanced Diploma in Digital Media Technology

Year 1: International Diploma in Information Technology & Communication

CGPA: 3.13

WORK EXPERIENCE

Principal Software Engineer, Infinite Software Services Nepal

Feb 2024 – Present

(Infinite acquired Cotiviti Nepal)

- Scoped client deliverables and led the system design, architecture and development of MDM solution for Cotiviti, managing two high-performing teams.
- Facilitated best practices following organizations core values employing code reviews, versioning, reusability and maintainability.

Principal Software Engineer, Cotiviti Nepal

Feb 2020 – Feb 2024

- Led the architecture and development of a Master Data Management solution to ingest and master U.S. healthcare data, using AWS services for a real-time, event-driven, and auto-scalable serverless model.
- Proposed and implemented a modular approach for reusable data pipelines and optimized Impala queries, reducing execution time by 45% and improving client SLA.
- Mentored and evaluated interns, and led yearly program to teach trainee batches the basics of Python programming and Bash scripting.

AI Developer, Ramailo Technologies

Feb 2023 – Nov 2023

Part-time consulting

- Researched and evaluated truthfulness of LLM to ensure responses aligned with the given context.
- Led the research, design, and development for the preliminary phase of a learning management chatbot project employing retrieval augmented generation and OpenAI's large language model.
- Successfully fulfilled the commitments for the first phase of the application which played a pivotal role in securing the startup's contract with the client.

Software Engineer, Pebble Infotech

Feb 2016 – Jan 2020

- Developed custom applications to manage inventory for Shopify-powered stores.
- Identified and fixed a severe vulnerability in Magento eCommerce store, thereby alleviating security efforts in preventing future attacks.
- Solely managed the cloud infrastructure and deployment processes of web applications on AWS.

Music Arranger/Recordist, Karma Records

Nov 2013 – Jan 2015

- Arranged and produced original music for artists, fostering creativity through continuous feedback.
- Led a team of musicians for a diverse concert project, seamlessly blending classical and pop elements.
- Innovated studio operations by researching and implementing optimal gear, while mentoring cover artists in music theory and artistic exploration.

TEACHING EXPERIENCE

External Supervisor, Islington College, Nepal

Sep 2020 – Present

Module: Final Year Project

- Mentored final-year undergraduate students guiding through the entire project development and documentation process, from inception to completion following continuous feedback.
- Assessed and graded students work based on the overall progress of the project development process.

Associate Lecturer, Herald College, Nepal

Jan 2021 – Jul 2021

Module: Big Data

- Tailored and refined course materials making it relevant to the IT industry in Nepal and delivered comprehensive lectures and workshops providing hands-on experience.
- Assessed and evaluated students' performance through meticulous grading of the coursework.

RESEARCH EXPERIENCE

Automated Hyperparameter Optimization in Machine Learning for Stock Prediction

Jul 2022

2022 Second International Conference on Next Generation Intelligent Systems (ICNGIS)

Sudip Tiwari Bishwakarma, Gajendra Sharma

[IEEEExplore](#) | [Project Codebase](#)

Product R&D: Innovation Lab, Cotiviti Nepal

2022 – 2024

Member of the Central Committee

Led the research and development efforts of addressing issues related to cross-department collaboration, transition of ideas from hackathon to production and hosting bi-weekly tech talk.

[Certificate of Appreciation](#)

AWARDS

Best paper awards

Jul 2022

2022 Second International Conference on Next Generation Intelligent Systems (ICNGIS) – INR 2,500

[Certificate of Participation](#)

INVITED TALKS AND WORKSHOP

Data Warehousing and Big Data

Aug 2022

IIMS College, Nepal

Designed and facilitated a 6-hour intensive workshop for M.S. students which involved in creating a local Hadoop cluster followed by hands-on exercises in manipulating data using MapReduce and Spark.

[Workshop Materials](#) | [Workshop Experience](#)

Designing Data Ingestion Pipeline for Healthcare Analytics

Feb 2022

techWebinarNepal Series 40

Presented in an online webinar sharing my expertise in Big Data.

[My Talk](#) | [Q&A Session](#)

VOLUNTEER EXPERIENCE

Technology Consultant, Society for Helpless Children

Mar 2019 – Jan 2020

Society for Helpless Children is a non-profit organization with the sole purpose of helping and empowering orphans and underprivileged children. I was fortunate enough to contribute my expertise by providing guidance and alleviating friction through the effective use of technology in their day-to-day operations.

SKILLS

Programming Languages: Python, Node.js, PHP, Bash, PowerShell

Frameworks & DBMS: TensorFlow, Django, Flask, Express.js, MySQL, Oracle, PostgreSQL, MongoDB, Redis

Technologies: Amazon Web Services, Cloudera Hadoop, Kafka, RabbitMQ, Spark, Kubernetes, Docker

Audio Technologies: Pro Tools, Finale, Guitar Pro

CERTIFICATIONS

Audio Signal Processing for Music Applications – Coursera

Ongoing

[Reinforcement Learning From Human Feedback – DeepLearning.AI](#)

Mar 2024

[Mindshift: Break Through Obstacles to Learning and Discover Your Hidden Potential – Coursera](#)

Jan 2021

[Structuring Machine Learning Projects – Coursera](#)

Dec 2020

[Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization – Coursera](#)

Oct 2020

[Neural Networks and Deep Learning – Coursera](#)

Aug 2019

Splunk Certified User – Splunk

Aug 2017

[Learn to Program: The Fundamentals – Coursera](#)

Jan 2014

[Professional Training: PHP/MySQL – Broadway Infosys](#)

Jun 2010