

Mala Deep Upadhaya

Research and Career Goals

My research combines approaches from data visualization, human-computer interaction, machine learning, visual analytics, and data mining to solve social context problems and develop ways to make complex systems/ideas easier to use and understand for experts and non-experts. I am also interested in web design/development, user experience, and business plan/strategy development.

Besides my academic goal, my goal is to empower people through education and community activities.

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-  Tableau Public/maladeep

Education

2016 - 2020	Bsc. in Computer Science <u>Kathmandu University</u> , Kavre, Nepal
2014 - 2016	Higher Secondary School <u>Prasadi Academy</u> , Lalitpur, Nepal
2011 - 2014	School Leaving Certificate <u>Sainik Awasiya Mahavidhyalaya</u> , Bhaktapur, Nepal

Technical Skills

Programing Languages	Python (Intermediate), Javascript (Intermediate), PHP (Intermediate), HTML (Intermediate), C (Basic), C++ (Basic)
Database	MySQL, Firebase
Documentation	LaTeX
Data Science Skills	Jupyter, Tableau, WEKA, Excel, QuickSight, Google Dashboard
Other Skills	UI/UX, Design Thinking, Event Management, Business Plan, Pitch Deck




Research Experience

2019 - Present	National Development and Research Institute (NDRI) , Nepal Technical Research Assistant Supported in School For AI program in the formulation of protocol, system and support teachers from all around Nepal to adopt AI-based technology for the respective school.
2018	Digital Learning Research Lab (DLR Lab) , Kathmandu University Data Analysis and Visualization Worked under the supervision of Assistant Professor Sushil Shrestha and performed data analysis, visualization for Moodle data set using various Data mining concepts.
2018	Dhulikhel Hospital , Nepal Data Analyst Performed data analysis, visualization and modeling of the Skin Prick test in Allergic Rhinitis patients of the hospital under the supervision of Assistant Professor Sushil Shrestha and Dr. Monika Pokharel.
2018	Youth For Nature (Present HCRI) , Nepal Data Analyst Support in data analysis in understanding human-elephant conflicts in eastern Nepal

Professional Experience

Aug 2020 – Dec 2020	Grepsr , Nepal Data Analysis and Visualization Supported in creating different visualization for the app, created an ad-hoc analysis of various Amazon's products using Tableau and QuickSight.
May 2020 – Aug 2020	Reduct , Nepal Intern, Data Science Group Supported in generating insights on employees' work performances, created dashboard and did language transcribing analysis.
Sep 2018 – Dec 2018	Fatima Al-Fihri Open University , Morocco Remote Intern, IT Office Supported in facilitating the IT infrastructure of the university system.

Publications

“The Role of AI on Jobs, Human Rights, and Education during Pre and Post COVID-19 Pandemic. Sah S.K., Shrestha R., Upadhaya M.D., Pokharel M. <i>Research and Reviews: Advancement in Robotics: 4 pp. 1-11 (1), May 14, 2021</i> 
Factors Affecting the Intention to Adopt Cloud Technology Among University Student of Nepal using Technology Acceptance Model. Upadhaya M.D., Dahal N., Byanju S., Dahal P., Pokheral M. <i>Recent Trends in Cloud Computing and Web Engineering, 3(1), 1–13, May 7, 2021</i> 
“Express Your Feelings”: An Interactive Application for Autistic Patients. Sharma P., Upadhaya M.D., Twanabasu A., Barroso J., Khanal S.R., Paredes H. <i>Universal Access in Human-Computer Interaction. Multimodality and Assistive Environments.,</i> Lecture Notes in Computer Science, vol 11573. Springer, Cham. July 4, 2019 
Enhancing the Mobile Banking Interface of Nepal Investment Bank Limited with an Approach of Human Computer Interaction (Under Review). Upadhaya M.D., Dahal N., Byanju S., Dahal P., Shrestha S <i>Sixth International Conference on Information Technology for Development (IT4D) 7-9 Nov 2019</i> 


Poster Presentations

Doctor Mobo: Personal Doctor on Hand Pokharel B., Gupta M.K., Thapa S., Ranjitkar K., Shrestha A.K., Bhandari R., Upadhaya M.D., Sharma G. <i>Department of Computer Science Kathmandu University</i> 2019. 
Understanding Human-Elephant Conflicts in Eastern Nepal Poudyal B., Upadhaya M.D., Khatiwada B., Upadhaya S. <i>Rufford Nepal Conference, 29-30 Jan 2018.</i>






Invited Presentations

Experience of conference and research Invited talk to 2015 Batch of HCI student group at Kathmandu University.
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Selected Media

My Mom Is A Data Analyst November 1, 2020, Helped in the translation of the project and its series into the Nepali language. 








Presentations

Above the Clouds: A Berkeley View of Cloud Computing <i>November 26, 2020.</i> Cloud Computing group, Kathmandu University, Nepal.  Presentation
Ways to evaluate a machine learning model's performance <i>February 26, 2020.</i> Data mining group, Kathmandu University, Nepal.  Presentation
How to choose Machine Learning algorithm. <i>February 23, 2020.</i> Data mining group, Kathmandu University, Nepal.  Presentation
All About Open Source Software Freedom Hacktoberfest <i>October 21, 2019.</i> Shree Saraswati Secondary School, Dolpa, Nepal.  Presentation
Toulmin's Model <i>September 4, 2014.</i> Kathmandu University, Nepal.  Presentation

Honors & Awards

2020	S-H-O-W Conference Diversity Scholarship , Recipient
2020	Datafest Tbilisi Diversity Scholarship , Recipient
2019	Web Weekend KTM Conference Diversity Scholarship , Recipient
2019	Intel® Edge AI Scholarship Foundation Course Nanodegree , Recipient
2019	Bertelsmann Tech Scholarship Challenge Course , Recipient
2019	Everest Hackathon, Genese Solution , Most Cost Optimized Challenge Winner
2019	Symposium on Artificial Intelligent for Sustainable Development Goal (SDG) , Participant
2018	Hult Prize OnCampus at Kathmandu University , Second Runner Up
2018	Massachusetts Institute of Technology, Global Startup Lab (MIT GSL) , Second Runner Up
2018-2020	Wells Mountain Initiative Scholarship , Recipient
2015	Prasadi Academy Higher Secondary School , Most Impressive Student
2008-2014	Sainik Awasiya Mahavidhyalaya Appreciation for Leadership , Recipient

Sample Projects

Machine Learning/ AI	
2020	Spam, Ham Detector Designed and developed web-based SMS spam, ham(not spam) detector called SMS: Spam Ham Detector using: Python, Algorithm: Naive Bayes, Flask, HTML, CSS Bootstrap.  Medium Blog ,  GitHub
2018	Disease Name Extractor Build a machine language project called Hamro Swastha that allows users to extract disease names from doctor's prescription using Python, Keras, Flask, HTML, Bootstrap.
2019	Women's Health Focused Chatbot Designed and built a Chatbot called MeriSathi, which assists women from the rural part of Nepal to solve their health issues using NPL, Python(Flask) Ngrok.
Mobile App	
2019	Human Health App Designed and build an android based app for Nirogi Inc USA, called Dr.Mobo, that focuses on providing relevant information about different diseases and recommendation medication using MySQL, Android SDK. 
2018	Pet Health App Designed and developed an android app called Dr.Panda, for pet lovers which provides a convenient way to care pets, provide First-aid information's for emergencies, help track the medical and dietary data of pets and provide geolocation of nearby veterinaries/hospital using Java, Android Studio and Google Maps. 
Web	
2020	e-commerce Designed and developed website for Musumusu Cashmere that sells knit and woven using top-quality cashmere obtained from the soft undercoat of cashmere goats using Shopify. 
2019	Non-Profit Organization Designed website for Himalayan Conservation & Research Institute, an independent, not-for-profit organization established by a team of young socio-ecological researchers and conservationists from Nepal to promote science-based conservation of natural resources using HTML, Bootstrap CSS,JS. 
2019	Women Education/Health Portal Everest Hackathon, Genese Solution , Most Cost Optimized Challenge Winner 🏆 Designed and build a web portal called HamriMitini, a curated platform that serves as a focal point for delivering services, advocating the issues, and connecting to health experts even at low internet bandwidth areas using:Vue.js,node.js, AWS cloud services. 
2018	Opus Massachusetts Institute of Technology, Global Startup Lab (MIT GSL) , Second Runner Up 🏆 Designed a website for own startup called Opus that connects the artist with art lover and allows an artist to sell and share their works and recognize them as a brand using: MySQL, PHP, HTML, CSS, Bootstrap, JQuery.

Community Services & Outreach

2019	Facilitator/Founder <u>Gyaan: Giving Back to Society</u>
2019	Coordinator <u>Innovation and Entrepreneur Community, Kathmandu University</u>
2018	Executive Member <u>Kathmandu University Computer Club</u>
2018	Founder Saraswati Computer Club, Dolpa
2015-2018	Volunteer <u>Youth for Nature SeedTree Inc</u>
2014-2018	Volunteer Educational Social and Environmental Conservation Team Nepal
2013-2014	Secretary <u>Sainik Junior Red Cross Circle</u>

Workshops

Facilitator	
2019	Startup Workshop @ Kathmandu University Innovation and Entrepreneur Community, Kathmandu University
2018	Learn Computer Saraswati Computer Club, Dolpa
Participant	
2020	Three Month Research Writing Training South Asian Writing Group 2020
2019	Impact Week Nepal Lufthansa Group Airlines<
2018	MIT Global Startup Labs MIT International Science and Technology Initiatives

Languages

Nepali Mother Tongue
English Professional Working
Hindi Limited Working
Spanish Basic