

Prerana Khatiwada

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EDUCATION

- University of Delaware** Newark, Delaware, United States
PhD in Computer and Information Sciences ; GPA: 3.83 August 2021 - Present
Courses: Machine Learning, AI, Database, Theory of Computation, Operating System, Human Computer Interaction, Data Mining
- Kathmandu University** Dhulikhel, Nepal
Bachelor of Computer Engineering ; GPA: 3.78 August 2015 - December 2019
Courses: Data Structures, Natural Language Processing, Probability and Statistics, AI, Machine Learning, Databases
- Bal Jagriti English Secondary Boarding School** Makwanpur, Hetauda
School ; Percentage: 89.875% Feb 2009 - Dec 2013

SKILLS SUMMARY

- Languages/Tech Stack:** MySQL, Snowflake, Html/Css, Oracle, PLSQL, Python, PHP, , Telerik & Kendo UI
- HCI Skills:** Thematic Analysis, Figma, Canva, Qualtrics Survey Design, Semi Structured Interviews, Usability Testing, Wireframing, Prototyping, Observational Study, Google Analytics, Dedoose, NVivo, User flows, Mockups
- Other Tools:** GIT, JIRA, Slack, Weka, Confluence, ALM, WinSCP, Putty, Visual Studio, PyCharm, Postman
- Frameworks/Libraries:** Angular JS, .NET Framework, Pandas, Numpy, NLTK, Kendo UI, Laravel
- BI Tools:** Looker, OBIEE, BI Publisher, Tableau

PAPER/PUBLICATIONS

- “Toward Browser-based Interventions to Tackle Misinformation Online” **ACM SIGCHI 2022**
Designing for Mis/Disinformation Workshop, 2022 [Community Comm](#)

EXPERIENCE

- University of Delaware** Newark, Delaware
Teaching Assistant August 2021 - Present
 - Duties:** Helping students with the Course Advanced Web technologies CISC474 and Machine Learning CISC684
- University of Delaware** Newark, Delaware
Research Assistant August 2021 - Present
 - Developing Crowdsourcing and intervention tool/prototype(Chrome Plugin) capable of logging a user's browsing data, storing media annotations, and displaying information about news media bias using existing datasets.
 - Background in qualitative, quantitative, and mixed method UX research methods, Knowledge of wireframe tools e.g. Figma.
 - Developing personas and usage scenarios.
 - Preparing low-fidelity prototypes of UI (ranging from paper-and-pencil concepts to wireframes or prototypes) to high-fidelity designs/ mockups of UI, and high-fidelity visuals for the features.
 - Participating in User Experience Design activities such as Usability Testing, Semi Structured Interviews with respect to online experiences with misinformation, Surveys, observation.
 - Conducting usability evaluations and providing recommendations on how to improve our designs, Helping to extend and maintain our design system.
 - Integrate Firebase Authentication and Firebase Security Rules, Work on developing personalized visualizations and informatics dashboards using D3.js.
 - Developed a toolbar that provides the user with information about the political leaning and fact-based reporting of a given news source.
- LIS Nepal Pvt.Ltd** Lalitpur, Nepal
Software Engineer(Full time, Contractual) September 2020 - July 2021
 - Designed, build, and maintain highly reusable JavaScript, HTML, CSS, and Kendo UI code for Stock Exchange of Nepal, **NEPSE**.
 - Re-Designed **Online Trade Management System** to replace the custom grid with Angular Data Grid.
 - Designing UI elements such as input controls, search boxes, navigational components, and widgets on the system.
 - Designing interactive dashboards, highly formatted reports, ad-hoc queries for Projects and Clients like Siam Makro(Thailand), HotTopic, and Belk (United States), and unit testing using Looker, OBIEE/BIP.

- Conduct usability testing, Identifying and troubleshooting UX problems (e.g. responsiveness, drag and drop, autocomplete feature).
 - Extensively worked in frontend using Bubble.io, ReactJs, Typescript, and Redux framework along with production bug fixes and regression testing.
 - Worked on Real-time production issue fixes for clients, Support Monitoring on Hubspot, and UI development.
- **LIS Nepal Pvt.Ltd** Lalitpur, Nepal
Associate Software Engineer(Full time) August 2019 - September 2020
 - Implementation of Datwarehouse projects mostly for US and Asia Pacific retail customers.
 - ETL, Analytical Reporting, Oracle Query Optimization, Unit Testing, and Extensive validation across source and Target Systems.
 - **LIS Nepal Pvt.Ltd** Lalitpur, Nepal
Software Intern (Full time) May 2019 - August 2019
 - Batch Monitoring with Autosys, Data Analysis & Validation, and custom scripting.
 - Attending all aspects of the Agile project management (Sprint Planning, Standups, Sprint demo, and retrospective).
 - **Digital Products Lab** Kathmandu, Nepal
Content Designer April 2019 - October 2019
 - Retail/E-commerce research experience.
 - Work collaboratively with UX team members, Development teams, Product Owners, and Users as part of developing a Shopify app that makes an impact.
 - Review existing research or analyze existing products, applying the findings to a specific problem and/or process.
 - Reaching out to customers for feedback.

HONORS AND AWARDS

- **CIS Distinguished Graduate Student Award** at University of Delaware 2022
- **Recipient of SIGCHI Gary Marsden Travel Awards** for graduate students 2022
- Selected and Received Funding to attend **CRA-WP Grad Cohort for Women 2022**, 2022
- Offered with **Technology Scholarship Program** powered by Bertelsmann for the Intro to ML with Tensor Flow challenge course. December, 2021
- **Semester Topper** in bachelor's in computer engineering for 3 semesters, 2017-2019
- Awarded with the **Merit-based full tuition** fee waiver in Kathmandu University, 2018
- Rewarded with the **National Level Government Scholarship** award for Engineering, 2015

PROJECTS

- **Community Comms:** Worked as HCI researcher to developed Chrome Extension that passively logs user browsing behaviour and allows users to view the aggregated bias rating of a news site, a real-time breakdown of their news media consumption for the day, and other metadata associated with their online behavior.
- **UD students Observation:** In this project ,a formative inquiry was often performed –namely, in-situ observation–to understand how students currently use a complex digital kiosk that we can easily observe in public such as an ATM or a digital menu and ordering system in a fast food restaurant. We analyze this data, identify where and how they struggle, and sketch out alternative designs.
- **Desktop and Mobile-friendly Web Page:** I developed a ready to publish Desktop friendly and mobile friendly webpage with the help of Canva graphic design tool and link these pages to social media channel, published them with the help of Canva URL.
- **Nepal Stock Exchange:** Worked on front end, Customize the Trade Management and Surveillance system for 'NEPSE'. Tech: Angular6, MySQL, Kendo UI JS Library
- **Gocchi:Compliance Manager:** Customer Support and Website Maintenance, Website architecture and user interface design, Prototyping in Figma. Tech: React/Redux, Bubble.io, Hubspot
- **SWARM:** Created a well-structured RESTful API, using the ASP.NET Core framework and Telerik ASP.Net controls.
- **Family Tree:** Mobile App (Android) User Flow Planning & Unit-testing for robustness, including edge cases, usability, and general reliability. Tech: React/Redux, Bubble.io, Hubspot
- **Siam Makro, Thailand:** Created business intelligence reports and data warehousing solutions for retail clients,Oracle retail Merchandising system, Query Optimization Tech: Oracle, OBIEE, BIP, Bash scripting, Winscp.
- **BELK United States:** Batch Handling/Monitoring, Scheduling and execution of ETL tool jobs, Creation of Extraction and Loading scripts in accordance to the existing python script, ETL, Datavalidation Tech: Snowflake, Autosys, Putty
- **Hot Topic, Inc, United States:** Developed custom scripts for the ETL purpose, Performed unit testing and extensive validation across the source and target systems, Prepared sales and inventory reports. Tech: Looker,Jira, Snowflake, Python
- **Evaluating Serverless Machine Learning Performance with Google Cloud Run:** Created a Machine Learning Python Flask Application for image classification, containerize it, and deployed the containerized application in the google cloud platform and determine different metrics like autoscaling feature. Tech: Python, Google Cloud Run, Docker, Containers, Locust API.

CERTIFICATIONS AND TRAININGS

- Coursera Course Get Started with Figma.
- Coursera Course Design a mobile app interface with Moqups.
- Coursera Course Understanding Research Methods.
- Udemy Course Learn Machine Learning and AI(Including Hands-on 3 Projects).
- CITI Program Completion of Responsible Conduct of Research “RCR” Training.
- Beauty and De Brains Participation in 4 day training workshop on designing Inspiring Young women with technology.
- Udemy Course Crash Course for Laravel7 and vueJs.
- Google Digital Unlocked Completion and certification of Digital Marketing by Google Digital Unlocked.
- Udemy Course Build 10 Real World Deep Learning Projects with Python.
- Data campIntroduction to Python free Data camp Course.

VOLUNTEER EXPERIENCE

- Executive Committee Member in **Women in Big Data nepal**
- Executive Board Member of **Kathmandu University Computer Club**
- Organizer of **GLOBAL VILLAGE PROGRAM** and **YES NEPAL** by AIESEC
- Volunteered Biggest Entrepreneurship Movement **HULT Prize, The Next Wave of Social Entrepreneurs**
- Participated in 3 days **Social Camping** for Waste management awareness program in Village Goldhunga
- Participated in 1st **SXC Mini Marathon**,Run for Cancer Survivors,Fundraiser and awareness campaign against cancer to support RICHIA FOUNDATION
- Voluntary contribute funds directly to the Community Forest Service through **SXC SET Cycle Rally**, Polyfree Kathmandu and Cleaner Bagmati
- Volunteer and Organizer for the event **Creating Smart Cities in Nepal**
- Executive Board Member, **St.Xavier’s Literary Club** and Organizer of **Prabaha Kavi Gosthi**

MANAGEMENT AND LEADERSHIP SKILLS

- Executive Member and “**Event manager at “Nepalese Student Association” NSA**”, University of Delaware.
- “**Event Co-Ordinator”** Entrepreneurs Tales v 2.0 held by Kathmandu University in collaboration with KUCC.
- “**Organizer/Marketing Team Leader”** of IT MEET 2018/2019 being an executive member of the board.
- “**Editor/Managing team for IT EXPRESS MAGAZINE”** 2017 in one of the biggest fairs in the country.
- “**Emcee at 13th Korean Film Festival”** and Company Annual event at LIS NEPAL.
- General Member of “**Girls in ICT Nepal”**
- Guest Speaker in “**Fourth Nepal Youth Science Summit-2021 (NYSS-2021)** with the slogan,**Bring Best Brains”** Organized by Brainycube Research Organization
- Participation in “**4th edition of Global Workshop on Recent Research Techniques 2020”**with the theme **IT, Automation and Industrial revolution.**
- Organize “**The 7th Asian University Forum 2018 in Sustainable Development Goals”** in collaboration with Kathmandu university and Seoul National University