

Prerana Khatiwada

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RESEARCH INTEREST

I am a fourth-year Ph.D. student researching online user behavior at the intersection of Human-Computer Interaction (HCI), Ubiquitous Computing, and Large Language Models. My expertise in quantitative and qualitative research methods allows me to uncover meaningful insights that inform people-related decisions. My research spans online news evaluation, personal informatics tools, technology-mediated behavior change, privacy, and interaction design—particularly human-centered digital interventions such as Just-in-Time Adaptive Interventions (JITAI). I am passionate about leveraging data-driven approaches to improve decision-making, enhance user well-being, and combat misinformation through adaptive, real-time interventions. My methodological toolkit includes experimental research (e.g., A/B testing, online experiments), survey design, ethnographic research, server log and user browsing data analysis, and benchmarking studies. With a strong foundation in both behavioral and computational approaches, I aim to bridge the gap between human behavior insights and technology-driven solutions in organizational contexts. Currently, I am working towards developing a system that detects propaganda techniques in news articles and generates targeted interventions. The focus is on creating a dynamic selection algorithm that prioritizes the most relevant insights for users.

EDUCATION

- University of Delaware** Newark, Delaware, United States
• *Ph.D. in Computer and Information Sciences* 08/2021 - 08/2026 (Expected)
Advisor: Dr. Matthew Louis Mauriello
Courses: Research in Cybersecurity, Research in Accessible Computing, Research in Human Centered Computing
- University of Delaware** Newark, Delaware, United States
• *Masters in Computer and Information Science ; GPA: 3.9* 08/2021 - 05/2024
Courses: ML, AI, Operating System, Theory of Computation, DataMining, HCI, Statistics
- Kathmandu University** Dhulikhel, Nepal
• *Bachelor of Computer Engineering ; GPA: 3.78* 08/2015 - 12/2019
Courses: Data Structures, Natural Language Processing, Probability and Statistics, AI, Machine Learning, Databases

PAPERS & PUBLICATIONS

- **Khatiwada, P.**, Mumma, I., Halko, L., Alvanpour, A., Mauriello, M.L. (2022). "Toward Browser-based Interventions to Tackle Misinformation Online." The Designing for Mis/Disinformation Workshop (CHI '22 Workshop).
- **Khatiwada, P.**, Halko, L., Syed, N., Mahesh, A., Alvanpour, A., & Mauriello, M. L. (2025). Spotting Online News: A Mixed Method Study of Online News Engagement and Perceptions on Misinformation Interventions. Proceedings of the ACM on Human-Computer Interaction, 9(2), Article CSCW173, 30 pages. <https://doi.org/10.1145/3711071>
- Mukhopadhyay, S., Rajgaria, A., **Khatiwada, P.**, Shrivastava, M., Roth, D., & Gupta, V. (2025). MAPWise: Evaluating Vision-Language Models for Advanced Map Queries. Proceedings of NAACL 2025 Main Conference.
- **Khatiwada, P.**, Syed, N., Halko, L., Mahesh, A., Kiamilev, R., Vazquez, S. A., Mauriello, M. L. (2025). "Empowered Readers: A Controlled Usability Study of a Personal Informatics Tool for Supporting Users with Online News Content Discernment." (Under Review IJHCS)
- **Khatiwada, P.**, Ciuba, A., Nayak, A., Gautam, A., Mauriello, M. L. (2024). "Regulating Social Media: Surveying the Impact of Nepali Government's TikTok Ban." Unpublished Manuscript. (Under review for CSCW 2025)
- Parekh, S., **Khatiwada, P.**, Bagozzi, B. E., Mauriello, M. L. (2025). "The Security of Work: Public Perceptions of Generative AI in Creative Writing and its Implications for Labor." (Under Review ACM Transactions on Intelligent Systems and Technology Special Issue)
- Wang, Q., **Khatiwada, P.**, Chouhan, A., Mahesh, A., Mwaria, J., Tran, D. D., Evans, C. B., Mauriello, M. L. (2025). "Exploring Decision Making in Human-AI Collaboration for News Classification with LLM-Generated Explanations." (Under Review IJHCS)
- Olson, L., **Khatiwada, P.**, Munirathinam, I. K., Arora, B., McCoy, K. (2024). "Towards Improving OCR for People with Visual Impairments by Providing Real-Time Feedback on Photo Quality." (Under Review CHI Late Breaking Work 2025)
- Wang, Q., Erqsous, M., **Khatiwada, P.**, Karwankar, A., Alhassan, F. M., Chandrasekaran, A., Abraham, B., Lovell, F., Ngo, A. A., Mauriello, M. L. (2024). "Leveraging Large Language Models for Review Classification and Rating Estimation of Mental Health Applications." (Under Review ICWSM 2025)
- Karwankar, A., Ruggiero, E., Lipkin, Z., Iyer, M. K., Brugel, S., **Khatiwada, P.**, Stevens, D., Mauriello, M. L. (2025). "uCue: An Interactive Musical Interface to Enhance Formative Listening Experiences for Children with ASD." (Under Review Interaction Design and Children (IDC) Conference 2025)

- Vajpeyi, M., Mukhopadhyay, S., **Khatiwada, P.**, Gupta, V., & Roth, D. (2025). Enhancing Product Descriptions with LLM-Driven Structured Insights (In Preparation ACL Demo 2025)

TEACHING EXPERIENCE (3+ YEARS)

University of Delaware, *Department of Computer and Information Sciences*
Teaching Instructor: CISC355 (Computer Ethics and Society)

Newark, Delaware
01/2024, 06/2024

1. Prepare and deliver engaging and informative lectures or presentations.
2. Explained relationships among information technology, society and ethics by examining issues raised by increasingly widespread use of computers.
3. Topics include ethics for computer professionals, computer impact on factory work, office work, personal privacy and social power distribution.
4. Develop course materials such as syllabi, handouts, and assignments.

Graduate Teaching Assistant 08/2021 - Present

1. Hold office hours and handled lectures in the absence of Professor.
2. Offer one-on-one assistance to students who require extra help or clarification.
3. Assess student progress through assignments, quizzes, exams, and other means.
4. Collaborate with the teacher to develop lesson plans, instructional materials and activities.
5. Develop course materials such as syllabi, handouts, and assignments as per requirement in the following courses:
 - (a) Database Systems (Course Code: CISC637)
 - (b) Advanced Web technologies (Course code: CISC474)
 - (c) Machine Learning (Course Code: CISC684)
 - (d) Operating System (Course Code: CISC361)
 - (e) Human Computer Interaction (Course Code: CISC482)

RESEARCH EXPERIENCE (3+ YEARS)

University of Delaware, *Department of Computer and Information Sciences*
Graduate Research Assistant

Newark, Delaware
08/2021 - Present

- **Community Comms [Lead Researcher]:** Worked on combating online misinformation by developing tools to enhance digital news media literacy. A mixed-methods pilot study involved 34 participants through a browser plugin, tracking their browsing sessions and online news article consumption. The study explored the relationships between news media literacy scores, browsing sessions, and time spent online to guide the development of future misinformation interventions.
- **PI Study [Lead Researcher]:** Created a novel prototype—a personal informatics visualization dashboard. It helps users better understand news articles by showing information like source credibility, article bias, sentiment analysis, and estimated reading time. To test the dashboard, we conducted a mixed-method study (n=100). We divide them into two groups: one group used the dashboard, and the other didn't. Statistical tests, including ANOVA and t-tests, revealed that participants using the dashboard were significantly more aware of biases, sourcing quality, and overall article credibility. Our goal with this tool is to help people spot false or misleading information in online news.
- **Beyond Bytes [Lead Researcher]:** International survey (n=108) on understanding how digital technologies, policy responses, and cultural dynamics interact globally, and their implications for governance and societal norms in Nepal. Using statistical analyses and hypothesis testing, the study investigates the behavior and perceptions of TikTok users before and after the platform's ban. Findings suggest the importance of institutionalizing collective governance models that encourage public deliberation, nuanced control, and socially resonant policy decisions.
- **Adaptive Intervention System [Lead Researcher]:** Working towards developing a system that detects propaganda techniques in news articles and generates targeted interventions. The focus is on creating a dynamic selection algorithm that prioritizes the most relevant insights for users.

TECHNICAL SKILLS

- **Languages/Tech Stack:** Html/CSS, C, Python, PHP, Node JS, JSON, JavaScript, Bootstrap, RDBMS(Relational Database Management System), Oracle, MYSQL, Snowflake, PL/SQL, Typescript
- **Python Packages:** Scikit-Learn, Nltk, Pandas, Numpy, Matplotlib
- **Frameworks/Libraries:** Angular JS, D3.Js, ASP.NET Core, React Redux, JQuery, Telerik & Kendo UI, Laravel
- **Data Visualization and Reporting Tools:** Looker, OBIEE, PowerBI, BI Publisher, Tableau
- **HCI Skills:** User Persona Creation, Cognitive Psychology, Thematic Analysis, Figma, Canva, Qualtrics, Semi Structured Interviews, User Surveys, Usability Testing, Wireframing, Prototyping, Observational Study, Dedoose, Human-Centered Design, Integrating User Feedback, Design Thinking, Contextual Inquiry, Customer Journey Mapping, Design Thinking Framework

- **BI Skills:** Business Intelligence Reporting, Data Visualization, ETL Concepts, Data Warehousing
- **Statistical Skills:** XLSTAT, JMP, Excel, SPSS, STATA, Python, Descriptive and Inferential statistics, Regression analysis, Hypothesis Testing, ANOVA
- **CADP (Corporate Analyst Development Program) Skills:** Process Improvements, Process Mapping, Storytelling
- **Others:** Git, RESTful APIs, AWS, Oracle Golden Gate, Docker, Containers, Google Cloud, JIRA, Application Lifecycle Management (ALM), Trello, Hubspot, Weka, Confluence, Winscp, Putty, Visual Studio, Pycharm, Postman, Agile & Scrum

LANGUAGES

English (*Highly proficient*), Hindi (*Highly proficient*), Spanish (*Novice*), Nepali (*Native*).

ENGAGEMENT IN HCI COMMUNITY AND PROFESSIONAL SERVICE

- Cultural Competence in Computing (3C) Fellow, 2024-Present
- Member, ACM and Special Interest Group on Software Engineering (ACM-SIGCHI), 2021-Present
- Member, ACM UD's Student Chapter, 2023-Present
- AC for the ACM CSCW 2024 Poster track (4)
- Full paper submission (2) Reviewer for CHI 2025
- Full paper submission (1) Reviewer for ACM IMX 2024
- Full paper submission (2) Reviewer for CogSci 2024
- Full paper submission (3) Reviewer for CSCW 2024 (01/2024)
- Full paper submission (2) Reviewer for CSCW 2024 (07/2023)
- Full paper submission (2) Reviewer for DIS 2024
- Full paper submission (1) Reviewer for CUI 2024
- Full paper submission (1) Reviewer for CHIPLAY 2024
- Full paper submission (2) Reviewer for AMCIS 2024
- Full paper submission (1) Reviewer for Mobile HCI 2024
- AC for the ACM CSCW 2023 Poster track (5)
- Student Volunteer, ACM Designing Interactive Systems, July 2023

PROFESSIONAL ACHEIVEMENTS

JP Morgan Chase and Co. Corporate Analyst Development Program (CADP) virtual experience program on Forage - 02/2024

- Completed a job simulation focused on understanding the Corporate Analyst Development Program.
- Built a visualization dashboard using Tableau
- Documented a business process and identified and communicated opportunities for improvement
- Developed a PowerPoint presentation to communicate key ideas and talking points and tell a compelling story

JP Morgan Chase and Co. Quantitative Research Virtual Experience Program on Forage - 02/2024

- Completed a simulation focused on quantitative research methods
- Analyzed a book of loans to estimate a customer's probability of default
- Used dynamic programming to convert FICO scores into categorical data to predict defaults

PRESENTATIONS AND TALKS

- Co-Presented research poster on "*Towards Generating Feedback to Improve OCR for People with Visual Impairments*" at **CIS 60th Anniversary University of Delaware**.
- Presented poster on "*Does Reading News Online Matter: A Mixed Methods Pilot Study on Browsing and News Consumption Behaviors to Inform Interventions for Misinformation*" at the **2023 Grad Cohort-WOMEN organized by CRA (Computing Research Association)**.
- Showcased research poster "*Community Communications: A Pilot Study of Browsing Behaviors and News Consumption Habits to Inform Future Misinformation Interventions*" at **DARWIN Computing Symposium Poster in 2023**.
- Delivered virtual workshop paper presentation titled "*Toward Browser-based Interventions to Tackle Misinformation Online*" at **CHI 2022 Workshop 17 - Designing for mis/disinformation: Human-Centered Approach**.

Graduate Students

- **Dileep Nimma Reddy** (2023): Provided guidance for the Community Comm Personal Informatics project, encompassing roles in prototype creation, tool implementation, and meticulous testing and debugging.
- **Haritha Varkala** (2023): Supervised in tasks such as crafting study materials, including consent forms, participant instructions, and survey questions.
- **Yongho Cho** (2023): Guided in bias chart development, Firebase authentication, and coding tool functionality.
- **Ishwar Sekaran** (2024): Guided the backend scripting for the Wizard of Oz setup for photography app for people with visual impairments.

Undergraduate Students

- **Luke Halko** (2022-2023): Supervised in the *Spotting News Online project* in the early chrome plugin development.
- **Nabiha Syed** (2023): Guided UI enhancement of visualization dashboard's frontend.
- **Ashrey Mahesh** (2023): Guided popup warnings implementation, data analysis, and Firebase data cleaning.
- **Elise Ruggiero** (2023): Experienced mentor in qualitative coding, video coding, and thematic analysis.
- **Ricky K** (2023): Guided in the qualitative video coding and running the usability sessions.
- **Antonia Vazquez** (2024): Guided in the statistical analysis and qualitative coding.
- **Solemn Gacon** (2024): Guided on frontend layout and Firebase token management system.
- **Abdulrahman Abdulhamid** (2024): Provided guidance on backend architecture, including server integration for the personal informatics dashboard.
- **Varun Pappu** (2025): Provided guidance on UI/UX.
- **Dustin Stark** (2025): Provided guidance on machine learning models training.

RESEARCH EXPERIENCE (3+ YEARS)

- Designed and implemented experimental studies to assess the efficacy of Vision-Language Models (VLMs) in answering complex map-based queries.
- Implemented, tested, and analyzed results, providing detailed documentation support.
- Generated/ presented test reports, including plots, tables, evaluation criteria, and conclusions from collected data.
- Implemented UI/UX-based software applications.
- Created high-level and detailed user flow diagrams, wireframes, storyboards, mockups, and prototypes to communicate interaction and functional designs.
- Wrote User Guides, Release Notes, and other product documentation.
- Translated usability test results and user research into product design improvements.
- Deep knowledge in experimental design and statistical modeling (e.g., descriptive analysis, regression, hypothesis testing, Anova, Manova, Mancova, correlation, multivariate analysis, text analytics, generalized linear modeling, multilevel modeling, structural equation modeling, longitudinal analysis).
- Basic knowledge of psychometrics and measurement theory.
- Previous experience researching genAI, computer-supported collaboration, or knowledge workers.
- Experience turning qualitative findings into frameworks or design artifacts, with a mixed-method background such as qualitative interviews and surveys (including related statistics).
- Experience using remote research tools and vendors such as Qualtrics, UserTesting, Survey Monkey etc.
- Worked on LLMs to convert unstructured data from sources like charts, tables, and maps into structured formats.
- Skilled in using tools such as R, SQL, SPSS, Power BI, OBIEE, Looker and Tableau and Python for data analysis and reporting.

WORK HISTORY (2+ YEARS)

LIS Nepal Pvt. Ltd

Software Engineer (Full time, Contractual)

Lalitpur, Nepal
09/2020 - 07/2021

- Improved NEPSE's UI with JavaScript, HTML, and CSS, boosting user experience by 30%.
- Resolved 90% of production issues swiftly, improving client satisfaction.
- Developed data dashboards for clients, enhancing visualization by 40%.
- Streamlined data processes with Oracle ETL, achieving a 15% efficiency gain.

- Engineered reusable JavaScript, HTML, CSS, and Kendo UI code for NEPSE, improving user experience and data presentation substantially.
- Leveraged Bubble.io, ReactJs, Typescript, and Redux to streamline production processes, drastically reducing related issues.
- Conducted heuristic evaluations of Gocchii's 'Compliance Manager site,' resolving numerous bugs and improving UI/UX significantly.
- Partnered with project teams to create field-level mapping and document data transformation requirements, boosting data integration accuracy.

LIS Nepal Pvt. Ltd

Associate Software Engineer (Full time)

Lalitpur, Nepal
05/2019 - 09/2020

- Monitored Autosys batches, reducing failures by early issue detection.
- Developed custom scripts using shell and Snowflake SnowSQL for ETL and data validation, optimizing data processing efficiency.
- Enhanced ETL processes, improving data-driven decisions by 30%.
- Optimized Oracle queries, boosting system performance.
- Transformed data with the Robing Data Model for better organization.
- Streamlined data processes using Python in Snowflake and Oracle.

Digital Products Lab

Content Designer

Kathmandu, Nepal
04/2019 - 09/2019

- Coordinated a 5-member team for an e-commerce launch, boosting sales in the first quarter.
- Worked with cross-functional teams to enhance Shopify App user interaction.
- Conducted in-depth user experience analysis, translating insights into actionable recommendations for Shopify App optimization.

HONORS AND AWARDS

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- CHI 2025 Papers – Submission 3676: Received an **excellent reviewer** rating.
 - *Nominated*–**Doctoral Fellowship for Excellence ‘25-‘26.**
 - *Nominated*–**Graduate Student Excellence in Teaching Award ‘24.**
 - *Nominated*–**Doctoral Fellowship for Excellence ‘24 - ‘25.**
 - *Nominated*–**George W. Laird Merit Fellowship ‘21 - ‘22.**
 - *Nominated*–**Graduate Student Excellence in Research Award ‘23.**
 - *Nominated*–**Graduate Student Excellence in Teaching Award ‘23.**
 - **ACM SIGCHI CSCW Emerging Scholars award**, SIGCHI, 2023.
 - **Grace Hopper Celebration Travel Sponsorship**, University of Delaware, 2023: Mentored undergraduate students at the Grace Hopper Celebration of Women in Computing.
 - **ACM Designing Interactive Systems (DIS) Travel Support**, University of Delaware, 2023: Assisted in attending the ACM DIS event.
 - **CRA-WP Travel Scholarship**, Computing Research Association Women, 2022, 2023: Attended Grad Cohort Workshops through CRA-WP support.
 - **CIS Distinguished Graduate Student Award**, University of Delaware, 2022, 2023: Recognized for outstanding performance in CIS.
 - **SIGCHI Gary Marsden Travel Award**, SIGCHI, 2022: Received travel award for graduate students.
 - **Scholarship by Delaware BioScience Association** to attend Inspiring Women in STEM Conference
 - **Technology Scholarship Program by Bertelsmann**, Udacity, 2021: Awarded scholarship by Udacity.
 - **Data Fellow 2023**, Code for Nepal, 2023: Designated as a Data Fellow by Code for Nepal.
 - **Merit-based Full Tuition Fee Waiver**, Computer Engineering Department, Kathmandu University, Nepal, 2017-2019: Received full tuition fee waiver for exceptional merit.
 - **Government Scholarship** for Bachelors in Engineering, Ministry of Education, Nepal, 2015: Awarded government scholarship for engineering studies.
 - **SLC Girls District Topper**, PABSON Schools, Makwanpur district, 2014: Recognized as the district topper among approximately 8000 students.

DIVERSITY, OUTREACH ACTIVITIES AND COMMUNITY ENGAGEMENT

- **Co-Chair Professional Development and Public Relations**, Delaware Nepali Society, 2025-Present
- **Vice President (Student Affairs)**, Graduate Student Government University of Delaware, 2024-Present
- **Events Committee Member**, Delaware Nepali Society, 2024-Present
- **President**, Nepalese Student Association at the University of Delaware, 2024-Present
- **Lead EmPOWER Mentor (Empathic Peers Offering Wisdom, Encouragement, and Resources)** CIS at University of Delaware, 2023-Present
- **Member of Nepali Women in Computing (NWiC)**, part of the AnitaB.org, 2024-Present
- **Peer EmPOWER Mentor**, CIS at the University of Delaware, 2022-2023
- **Vice President (Internal Affairs)**, Graduate Student Government University of Delaware, 2023-2024
- **Graduate Student Representative**, International Studies Committee, University of Delaware, 2023-2024
- **Vice President**, Nepalese Student Association at the University of Delaware, 2023-2024
- **iBuddy Mentor**, CGPS and iBuddy Council at the University of Delaware, 2023-2024
- **Mentor**, Grace Hopper Celebration of Women in Computing, University of Delaware, 2023
- **Website Designer**, Nepalese Student Association website at University of Delaware, 2023-Present
- **Website Designer**, Graduate Student Government (GSG-UD), 2024-Present
- **Graphic Designer**, Nepalese Student Association website at University of Delaware, 2023-Present
- **Graphic Designer**, Nepali Women in Computing (NWiC), 2024-Present
- **Voting member and subcommittee member** for (ECPR) Events, Communications, and Public Relations at the Delaware Nepali Society, 2024-Present.
- **Participant**, Grace Hopper Celebration of Women in Computing, University of Delaware, 2023
- **General member**, Data Science Community (DSI), University of Delaware, 2023-Present
- **Executive Member & Event Manager**, Nepalese Student Association: NSA, University of Delaware, 2021-2022
- **Executive Committee Member**, Women in Big Data Nepal, 2022-2023
- **Organizer**, GLOBAL VILLAGE PROGRAM and YES NEPAL by AIESEC, 2018
- **Volunteer**, HULT Prize, The Next Wave of Social Entrepreneurs, 2018
- **General Member**, Girls in ICT Nepal, 2018-Present
- **Event Co-Ordinator**, Entrepreneurs Tales v 2.0 held by Kathmandu University in collaboration with KUCC.
- **Marketing Team Leader**, IT MEET 2018/2019 held at Kathmandu University.
- **Executive Board Member**, St. Xavier's Literary Club and Organizer of Prabaha Kavi Gosthi
- **Volunteer for Community Forest Service** through SXC SET Cycle Rally, Polyfree Kathmandu and Cleaner Bagmati

PAST PROJECTS

- **UD students Observation**: Employed in-situ observation methods to delve into student interactions with intricate digital kiosks in public spaces such as ATMs or fast-food ordering systems. Natural user behavior was meticulously recorded and analyzed for 20 participants, pinpointing pain points and paving the way for alternative designs.
- **Medication Management**: Led the end-to-end design and assessment of a mobile medication management application strategically crafted to boost patient adherence and minimize medication errors. Integrated essential functionalities, including medication reminders, refill requests, and drug interaction alerts. Rigorously evaluated the app's efficacy via user testing, interviews, and surveys involving patients and healthcare providers.
- **Nepal Stock Exchange**: Enhanced 'NEPSE' Trade System UI. Elevated user experience, cutting trade processing time by 25% and bolstering market transparency.
- **Gocchi: Compliance Manager [Customer Support, Website Architecture & UI Design]**: Provided adept customer support and meticulously maintained website architecture. Leveraged React/Redux and Bubble.io for streamlined development. Orchestrated user-centric interface design and rapid prototyping in Figma. Seamlessly integrated HubSpot for enhanced user engagement and support.
- **SWARM**: Used Telerik ASP.NET controls, resulting in streamlined data exchange, optimized system performance, and improved user experiences through efficient backend architecture.
- **Siam Makro, Thailand**: Enhanced retail operations by creating efficient business intelligence reports and data warehousing solutions. Employed Oracle, OBIEE, and BIP for faster data analysis, leading to quicker decision-making. Utilized query optimization and Bash scripting, accelerating report generation and improving overall retail efficiency.
- **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, and Prepared sales and inventory reports. Tech: Looker, Jira, Snowflake, Python
- **Fine Tune BERT for Textclassification with Tensorflow:** This involves fine-tuning BERT for text classification and sentiment analysis using TensorFlow 2 and TensorFlow Hub. The dataset is sourced from Quora, focusing on insincere questions containing aggressive, inflammatory, or sexually explicit content. The goal is to predict whether sentences are insincere (labeled as 1) or sincere/non-toxic (labeled as 0). BERT, a transformer model, revolutionizes natural language processing and comes pre-trained for mask language model and next sentence prediction tasks. The pre-trained model is used, fine-tuning it for the specific task. Dataset link: kaggle.com/c/quora-insincere-questions-classification/data.
- **Tweet Emotion Recognition with TensorFlow (Coursera Project Network):** Undertook the task of developing a system for recognizing emotions in tweets using state-of-the-art techniques. I implemented processes such as tokenization using TensorFlow, sequence padding, and truncation. Additionally, I successfully designed and trained a Recurrent Neural Network (RNN) for efficient sentiment analysis.
- **Evaluating Serverless Machine Learning Performance with Google Cloud Run:** Created a Machine Learning Python Flask Application for image classification, containerized it, and deployed the containerized application in the Google Cloud platform and determined different metrics like autoscaling feature. Tech: Python, Google Cloud Run, Docker, Containers, Locust API.
- **Sports Video Classification:** Created a machine learning model to distinguish six sports action classes from 300 video frames using CNN & RNN: boxing, hand-clapping, hand waiving, jogging, running, and walking.Tech: GoogleColab, Python, Tensorflow
- **Predicting Bank's Churn with ANN:** Create a geodemographic segmentation model to tell the bank which customers are at higher risk of leaving.Tech: Google Colab, Python, ANN, Numpy, Pandas
- **Amazon Alexa Review system:** Created a NLP model that managers products review.So by analyzing that product review, we will give if the product feedback is positive or negative, which can be easily used in the case of industries where they need to improve their product according to their reviews. Tech: Google Colab, Python, Natural language processing

CERTIFICATIONS AND TRAININGS

- **Corporate Analyst Development Program (CADP) Job Simulation by JP Morgan Chase & Co.** - Forage, 02/2024
- **Quantitative Research Job Simulationby JP Morgan Chase & Co.** - Forage, 02/2024
- **Fine Tune BERT for Text Classification with TensorFlow** - Coursera, 12/2023
- **Tweet Emotion Recognition with TensorFlow** - Coursera, 12/2023
- **Introduction to Generative AI** - Coursera, 12/2023
- **Introduction to Large Language Models LLMs** - Coursera, 12/2023
- **Conducting Remote UX Research Interviews** - LinkedIn, 09/2022
- **Customer Experience: Creating Customer Personas** - LinkedIn, 10/2022
- **Design Thinking: Understanding the Process** - LinkedIn, 10/2022
- **Getting Started in User Experience** - LinkedIn, 10/2022
- **UX deep Dive: Usability Testing** - LinkedIn, 10/2022
- **UX Foundations: Research** - LinkedIn, 10/2022
- **Getting Started with Figma** - LinkedIn, 09/2022
- **Data Visualization for everyone** - Datacamp, 06/2022
- **Understanding Data Science** - Datacamp, 06/2022
- **CITI Training-Institutional Review Board (IRB)** - CITI Program, 01/2022
- **Deep Learning Bootcamp 2021: Build 10 Real World Projects** - Udemy, 01/2022
- **Responsible Conduct of Research (RCR)** - CITI Program, 11/2021
- **Introduction to Python** - Datacamp, 10/2021
- **Learn Machine Learning and AI (Including Hands-on 3 Projects)** - Udemy, 10/2021
- **Crash Course for Laravel and Vue JS** - Udemy, 06/2020
- **Completion of Online Looker Training** - Looker, 07/2020

REFERENCES

Matthew Louis Mauriello, University of Delaware (mlm@udel.edu); Kathleen McCoy, University of Delaware (mc-coy@udel.edu); Daniel Stevens, University of Delaware (stevens@udel.edu); Aakash Gautam, University of Pittsburgh (aakash@pitt.edu); Pawan Shrestha, Director - BI Delivery at LIS Nepal Pvt. Ltd. (pawan.shrestha@lisnepal.com.np).