Priti Oli

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Education

The University of Memphis, Memphis, TN *Aug 2019 - In progress*
Ph.D. in Computer Science
Research: Natural Language Processing, Human-Computer Interaction, Computer Science Education

The University of Memphis, Memphis, TN *Aug 2019 - Dec 2021*
Master in Computer Science

Institute of Engineering, Pulchowk Campus, Kathmandu *Dec 2011 - Dec 2015*
Bachelor in Electronics and Computer Engineering

Work Experience

Learner's Data Institute *April 2020- April 2023*
Research Assistant

- Developed a comprehensive end-to-end conversational system to enhance program comprehension for students in introductory programming courses, focusing on improving learning outcomes and understanding of fundamental programming concepts.

DataWhys *April 2023- August 2023*
Research Assistant / Data Science Instructor

- Developed and delivered lectures and interactive exercises on data science concepts to undergraduate students.

Zakipoint Health, Inc. *June 2017 - July 2019*
Senior Software Engineer

- Developed and implemented Zakipoint's in-house software, surpassing client expectations by delivering a high-performing solution that met all functionality requirements within the specified timeline, resulting in increased client satisfaction and successful software adoption.
- Successfully leveraged d3.js to streamline data processing and visualization, resulting in the rapid development and deployment of a highly effective system for analyzing and presenting complex datasets.
- Optimized operational efficiency by automating daily maintenance tasks for Elastic search, resulting in streamlined operations and improved productivity

Deerwalk Services Inc. *Dec 2015 - Dec 2016*
Software Developer

- Designed and developed cutting-edge application systems, driving significant enhancements to client requirements within the Health portal system of Deerwalk.
- Enhanced reporting functionalities using Jasper Report and Apache POI, resulting in streamlined data analysis, improved decision-making processes, and enhanced overall system efficiency.

Projects

- **DeepCodeTutor**: Developed and contributed to both frontend and backend components of a dialogue-based scaffolding system for code comprehension tasks. Improved semantic similarity approaches to provide effective feedback to students leveraging Large Language Models(LLMs) with few shot and fine-tuning approaches.

- **Automated assessment of students' explanation during code comprehension** Researched, designed, and developed an end-to-end pipeline for assessing students' explanations during code comprehension using transformer-based models.
- **Knowledge Tracing using Transformer Models** Implemented and evaluated state-of-the-art deep learning models, including Recurrent Neural Networks (RNNs) and Transformers, to effectively perform knowledge tracing of students' coding exercises across multiple semesters, enabling accurate assessment of their learning progress and identification of areas for improvement.

Technical Skills

Programming Languages:	Python, Java, JavaScript, SQL
Tools & Framework:	PyTorch, TensorFlow, Pandas, NLTK, Spring-MVC, Struts

Awards and Honors

- Google Computer Science Research Mentorship Program (**CSRMP 2022 a**)
- GHC Scholar 2022, 2023 (**GHC 2022, 2023**)
- Peter I. Neathery Fellowship (Aug 2020) University of Memphis
- Runner-Up(2016) NASA space app challenge Kathmandu 2016