Shuhaib Mehri

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Education

University of Illinois Urbana-Champaign *Aug. 2024 - Present*
Ph.D. in Computer Science, Advisor: Prof. Dilek Hakkani Tur

University of British Columbia *Sep. 2019 - May 2024*
B.Sc. Honours Computer Science

- Graduated with distinction and completed the co-operative education program

Publications

Shuhaib Mehri, *Chuyuan Li, Giuseppe Carenini.* Exploiting Questions Under Discussion for Discourse Relation Recognition in Dialog. (CODI Workshop at EACL 2024)

Shuhaib Mehri, *Vered Shwartz.* Automatic Evaluation of Generative Models with Instruction Tuning. (GEM Workshop at EMNLP 2023)

Research Experience

University of British Columbia *May 2024 – Aug. 2024*
Research Assistant, Natural Language Processing Group

- Worked with Prof. Giuseppe Carenini and Dr. Chuyuan Li on self-reflection and feedback prompting to enable performance-aware prompting within LLMs.
- Designed a methodology that collects performance-based feedback and integrates it into follow-up prompts. Then, assessed and analyzed how LLMs respond to different forms of feedback.

University of British Columbia *Aug. 2023 – May 2024*
Research Assistant, Natural Language Processing Group

- Worked with Prof. Giuseppe Carenini and Dr. Chuyuan Li on modeling discourse relations in dialog.
- Exploited question-answer generation-based linguistic frameworks to annotate pre-existing datasets and aid in identifying relations. Presented extended abstract at the *CODI workshop at* ***EACL 2024***.
- Conducted a comprehensive study of various techniques that use either PLMs or LLMs, and assessed their effectiveness in discourse relation recognition at multiple granularities and under different data availability settings. Paper currently in submission.

University of British Columbia *Aug. 2022 – May 2023*
Research Assistant, Natural Language Processing Group

- Completed my honours thesis with Prof. Vered Shwartz on automatic evaluation of generative tasks.
- Developed a dataset designed to study the evaluation of generative tasks, consisting of 22 diverse human evaluation criterias set up in a uniform comparative format.
- Performed instruction tuning on LLMs in various training settings, and demonstrated that our techniques yield good performance on many evaluation tasks.
- Presented our publication accepted at the *Generation, Evaluation & Metrics (GEM) Workshop at* ***EMNLP 2023***.

Professional Experience

iClinic Systems Inc. *Dec. 2023 – May 2024*
Natural Language Processing Intern

- Was awarded the *Mitacs Accelerated Fellowship for Master's and PhD Students* as an undergraduate student, under the recommendation of Prof. Vered Shwartz.
- Led the development of an NLP information extraction pipeline tailored for clinical documents.

- Devised a comprehensive annotation guideline, used LLMs for structured generation and refined prompting strategies, and employed data augmentation to establish a robust evaluation framework.
- Integrated the pipeline into an API, enabling information extraction for patient data.

Amazon *Jan. 2023 – Aug. 2023*

Software Development Engineer Intern

- Worked on the Gurupa Team, the team responsible for Amazon's core page assembly engine.
- Owned the end-to-end creation of an interactive data visualization tool responsible for a 90% increase in efficiency of data analysis, which streamlined the migration from a page rendering framework.
- Employed various techniques to optimize the data retrieval process, achieving an 80% reduction in website latency.
- Spearheaded productionalization by configuring pipelines and environments and establishing a robust support policy, which led to a fully operation web application deployed to production.

Amazon *May 2022 – Aug. 2022*

Software Development Engineer Intern

- Worked on Amazon's Dram Team, the team responsible for the primary HTTP interface or rendering content.
- Architected the design and development of a command line tool that uses cloud computing to generate and register consumer ready metadata, enabling developers to create/manage Amazon web pages.
- Collaborated with different teams to fully integrate the command line tool, ultimately automating a process that previously required manual code changes and reducing team operation load by 30%.

Clir Renewables *Sep. 2021 – Dec. 2021*

Software Development Engineer Intern

- Built and deployed a management software solution, effectively maintaining a portfolio of 1000+ renewable energy assets.
- Enhanced code functionality, efficiency, and user experience by introducing new features, writing tests, and integrating changes to the internal tool portal, data access, user authentication, and notification services.

Teaching

University of British Columbia *Sep 2020 – May 2024*

Teaching Assistant

- Effectively taught fundamental computer science principles to students in core computer science courses. Responsibilities include grading student work as well as organizing and leading programming labs, office hours, and review sessions.

Introduction to Software Engineering (CPSC 310)
Models of Computation (CPSC 121)

Awards

Mitacs Accelerate Fellowship *2023*