

I am applying for the **Ph.D. program in Computer Science (CS)** at [REDACTED] with a focus on **Natural Language Processing**.

With your doctoral program and the support of your students, faculty, and staff, I hope to strengthen my research capabilities, aiding a career in natural language processing (NLP) research and computer science (CS) education.

My NLP research started during my undergraduate studies with the project of generating Wikipedia pages in Kannada (kan). With data-scarce settings, it required us to innovate and adapt. There was a sense of struggle, but also the joy of discovery. I came out wanting to do more exploratory projects and initiated three more in the following years. When I graduated in 2017, I was skilled in computer science and engineering and had developed a passion for language technologies and a yearning for discovery.

For the next four years, I was a software engineer for VMware, while I continued exploring NLP through reading, projects, and online courses. To expand my knowledge and skills in NLP, I joined the master's program in CS at the University of Colorado Boulder in Fall 2021.

In my first graduate research project, I worked on exploring the impact of typological similarity on cross-lingual transfer in low-resource context. With this experience I realized some of the challenges in NLP for low-resource languages, including incomplete meta information in databases such as URIEL and the limited usability of associated research tools, both of which I hope to contribute to in the future. For my recent project, I have been working on improving methods for training morphological inflection models. Due to the smaller model sizes, I have been able to work with a larger number of languages. This has provided me with a foundation in computational morphology, and more experience with scaled deep learning experimentation for NLP, which I plan to leverage during my PhD.

I have also had the pleasure of teaching programming languages to undergraduates during this time. This has reinforced my CS and PL foundations and fostered my teaching ability. I aspire to continue molding minds and sparking curiosity with my teaching in the future.

Although my broad interests are in NLP, I am specifically interested in general methods that use expert formalisms and representations for universal computational semantics.

At [REDACTED], I hope to work with [REDACTED] better methods in multilingual and low-resource NLP. I will build on their work [REDACTED] in NLP more holistically and improve methods, especially in low-resource languages and settings.