

Ashima Suvarna

Los Angeles, California - 90024

✉ asuvarna31@g.ucla.edu
🌐 <https://asuvarna31.github.io/>

EDUCATION

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- University of California, Los Angeles (UCLA)** Sept 2021 - Sept 2023
Masters in Science - Computer Science; Deepmind Scholar GPA: 3.8/4.0
 - Delhi Technological University (Formerly DCE)** Aug 2016 - June 2020
Bachelor of Technology - Computer Engineering GPA : 8.9/10

WORK EXPERIENCE

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- PLUSLAB, UCLA** Los Angeles, California
Research Associate Jun 2023 - Present
 - Researched Questions Under Discussion (QUD) framework to model discourse relationships within documents.
 - Proposed supervised models for automatic evaluation of QUD Parsers using theoretical properties of QUDs
 - Analysed the phonological knowledge of LLMs through prompt-based probing in English
 - Walmart Inc.** Sunnyvale, California
Data Scientist Intern Jun 2022 - Sep 2022
 - Implemented tree-based Click-Through-Rate prediction models for re-ranking products in Walmart Search.
 - Designed a dynamic slot allocation strategy to combine multiple ranking objectives like revenue and relevance.
 - Extracted relevance scores in product titles and image using CLIP as an important feature in ranking tree.
 - Dimagi Inc.** New Delhi, India
Technical Project Analyst June 2020 - August 2021
 - Designed requirements for mobile and web apps for Aanganwadi workers and Lady Supervisors on Commcare.
 - Aggregated maternal health data from Low Income Countries and extracted important features and insights.
 - Identified high risk pregnancies using SVMs and Random Forest Classifiers using vital health indicators.
 - Implemented outlier detection strategies in maternal and child health data collected via the Commcare platform.

PUBLICATIONS

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- (Conference)** J. Boudreau, A. Patra, A. Suvarna, P. Cook, Evaluating the Impact of Sub-word Information and Cross-lingual Word Embeddings on Mi'kmaq Language Modelling [Paper] **LREC 2020**
 - (Workshop)** A. Suvarna*, G Bhalla*, NotAWhere : A Computational Linguistic Perspective of Rape Culture and Victimization on Social Media such as Twitter, reddit [Paper] **ACL-SRW 2020**
 - (Journal)** M. Jain, A. Suvarna, A. Jain, An evolutionary game theory based approach for query expansion **Multi. Tools**

RESEARCH PROJECTS

Examining Gender Bias in Languages with Grammatical Gender for Hindi

Advisor : Prof. Kai-Wei Chang

Literature survey of the gender bias prevalent in languages with grammatical gender such as Spanish
Created a blog report by applying the framework in Zhou et al. 2019 to Hindi language.[**BLOG**]

Demo on Zero-shot Sonnet Generation with Discourse Level Planning

Advisor : Prof. Nanyun Peng

Scaled and refined a pipeline for sonnet generation for a web-based demo using AWS and Streamlit.[**CODE**]

Automated Prompt Engineering for Stereotype Detection in language models

Advisor : Prof. Kai-Wei Chang

Created an automatic prompt generation benchmark to evaluate the social biases in language generation.
Evaluated LLMs across four social bias categories - disability, religion, race, and gender.[**CODE**]

SERVICE

Reviewer: ACL-SRW 2023, NAACL-SRW 2022, ICLR Tiny Papers 2023

Program Committee: SoCal NLP Symposium 2023

AWARDS AND SCHOLARSHIPS

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- **Deepmind Scholarship** to fully fund Masters at UCLA CS; awarded to 2 students in Fall 2021 in the MS cohort.
 - **Mitacs Globalink Research Scholarship** to conduct research and visit a Canadian University for Summer 2019.
 - General Secretary of **Enactus DTU** in 2018; won the **KPMG Grant** to rehabilitate acid-attack survivors in Delhi.

SKILLS SUMMARY

Programming: Python, C/C++, SQL, HTML, CSS

Machine Learning: Pytorch, Apache Spark, AWS

RELEVANT COURSEWORK

Natural Language Generation - *Spring 2022*

Deep Learning - *Winter 2022*

Fairness, Transparency and Robustness in Natural Language Processing - *Winter 2022*

Automated Reasoning Theory and Applications - *Fall 2021*

Discrete Structure - *2017*

Algorithm Design and Analysis - *2018*

Theory of Computation - *2018*

Artificial Intelligence - *2019*

Machine Learning Foundations - *2019*

Big Data Analytics - *2020*

OTHER PROJECTS
