

# ABHAY ZALA

[aszala.com](http://aszala.com) | [Google Scholar](https://scholar.google.com/citations?user=asZala) | [GitHub](https://github.com/aszala) | [aszala@cs.unc.edu](mailto:aszala@cs.unc.edu) | [zala.abhay@gmail.com](mailto:zala.abhay@gmail.com)

## EDUCATION

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|-----------|---|------------------------|
| <b>MS</b> | University of North Carolina at Chapel Hill<br>Major: Computer Science<br>Advisor: Professor Mohit Bansal | May 2022 — Present     |
| <b>BS</b> | University of North Carolina at Chapel Hill<br>Major: Computer Science                                    | August 2019 — May 2022 |

## RESEARCH EXPERIENCE

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|---|--------------------------|
| <b>University of North Carolina at Chapel Hill</b><br>Advisor: Professor Mohit Bansal | September 2019 — Present |
|---|--------------------------|
- Vision-Language Navigation, 3D Pose Understanding and Image Captioning, Visual Commonsense Reasoning, Multimodal Text-to-Image Analysis, and Video/Moment Retrieval, Segmentation, and Captioning
  - Dataset Generation/Creation, Simulator Development
  - Led technical collaborations on dataset creation with Meta AI researchers
  - Paper Writing

## PUBLICATIONS

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\* Indicates equal contribution

4. **DALL-Eval: Probing the Reasoning Skills and Social Biases of Text-to-Image Generative Models**  
Jaemin Cho, [Abhay Zala](#), Mohit Bansal  
[\[Preprint\]](#)
3. **CoSim: Commonsense Reasoning for Counterfactual Scene Imagination**  
Hyounghun Kim\*, [Abhay Zala\\*](#), Mohit Bansal  
Proceedings of NAACL 2022 [\[pdf\]](#)
2. **FixMyPose: Pose Correctional Captioning and Retrieval**  
Hyounghun Kim\*, [Abhay Zala\\*](#), Graham Burri, Mohit Bansal  
Proceedings of AAAI 2021 [\[pdf\]](#)
1. **ArraMon: A Joint Navigation-Assembly Instruction Interpretation Task in Dynamic Environments**  
Hyounghun Kim, [Abhay Zala](#), Graham Burri, Hao Tan, Mohit Bansal  
Findings of EMNLP 2020 [\[pdf\]](#)

## PRESENTATIONS AND WORKSHOPS

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**Paper Presentation**, “CoSim: Commonsense Reasoning for Counterfactual Scene Imagination,” NAACL, 2022.

**Paper Presentation**, “FixMyPose: Pose Correctional Captioning and Retrieval,” AAAI, 2021.

**Workshop**, “ArraMon: A Joint Navigation-Assembly Instruction Interpretation Task in Dynamic Environments,” SpLU, 2020.

## INDUSTRY EXPERIENCE

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**Capital One** June 2022 — August 2022  
Machine Learning Intern

**ACL Year-Round Mentorship** October 2021 — Present  
Organizer

## HONORS AND AWARDS

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**Outstanding Undergraduate Researcher Award**, Honorable Mention 2021  
Computing Research Association (CRA)

## SKILLS

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**Programming:** Python, Java, C#, C/C++, Git, PyTorch, JavaScript, OpenGL, Svelte, jQuery, NodeJS, LaTeX, HTML/CSS, PHP, SQL

**Applications:** Machine Learning, Natural Language Processing, Computer Vision, Dataset Creation, Simulator Development, Website Development, Software Development, Database Management

**Platforms:** Unity Engine, Amazon Mechanical Turk, Docker, Kubernetes, GitHub, Amazon Web Services, Google Cloud, IBM Cloud, Linux, Windows, MacOS, Google Firebase, Adobe Suite, Autodesk Suite, Microsoft Office Suite, Overleaf

## OTHER

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- Site Developer/Maintainer of [nlp.cs.unc.edu](http://nlp.cs.unc.edu)
- Site Developer/Maintainer of [perfect-type.com](http://perfect-type.com)
- Site Maintainer of [murgelab.cs.unc.edu](http://murgelab.cs.unc.edu)
- Developed Social Media Platform for Networking
- Developed Online Peer Tutoring Service with AI assistance
- Developed TV Show and Movie Showcase Website

- Developed VR Healthcare Training System
- Developed AI assistant for Presentations
- ACL Year-Round Mentorship Logo Designer

## LANGUAGES

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**English:** Native Language

**Spanish:** Novice Listener, Speaker, Reading, Writing

**Gujrati:** Intermediate Listener, Novice Speaker, Reading, Writing

## REFERENCES

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**Mohit Bansal**, Associate Professor  
University of North Carolina at Chapel Hill

**Hyoungun Kim**, Assistant Professor  
University of Ulsan

**Shruti Patel**, Senior Machine Learning Engineer  
Capital One

**Yegor Kryukov**, Senior Manager for Solutions NLP services  
Capital One

**Satwik Kottur**, Research Scientist  
Meta AI