# Nihal V. Nayak

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ABOUT ME

*E-mail:* nnayak2@cs.brown.edu
*Github:* https://github.com/nihalnayak
*Languages and Frameworks:* Python, PyTorch, TensorFlow

EDUCATION

**Brown University**, Providence, USA

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| Ph.D. in Computer Science, GPA: 4.00 | August 2019 - Present |
| Sc.M. in Computer Science, GPA: 4.00 | August 2019 - May 2021 |

**M. S. Ramaiah Institute of Technology**, Bangalore, India

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|---|---|
| B.E. in Information Science and Engineering, GPA: 8.96 | August 2013 - May 2017 |

EXPERIENCE

**Brown University**, Providence, USA
Advisor: Stephen H. Bach
*Graduate Research Assistant*                                           August 2019 - Present

- Ongoing research on learning prompts with high-level knowledge for zero-shot learning in computer vision.
- Ongoing research on generating counterfactual data for zero-shot task answerability.
- Introduced *ZSL-KG*, a general-purpose zero-shot learning framework with a novel transformer graph convolutional network to learn zero-shot classifiers from common sense knowledge graphs. Outperforms existing graph-based methods on five out of six zero-shot benchmark datasets in fine-grained entity typing tasks, intent classification, and object classification [PDF] [Project].

**Stride.AI**, Bangalore, India
*NLP Engineer*                                                          November 2017 - May 2019
*Summer Intern*                                                           June 2016 - August 2016

- Researched on low resource information extraction in financial domain. Improved the state-of-the-art performance for financial NER dataset by 5.8 accuracy points [AAAI-MAKE 2019].

**Indian Institute of Science**, Bangalore, India
Advisor: H. S. Jamadagni
*Project Assistant*                                                     August, 2017 - November, 2017
*Project Intern*                                                          July 2015 - July 2017

- Developed a novel vocabulary flashcard application with a short answer grading algorithm [ACL SRW 2017].

SELECTED PAPERS

Victor Sanh et. al., **Multitask Prompted Training Enables Zero-Shot Task Generalization.** *arXiv*, 2021 [PDF][Code]

Wasu Piriyakulkij, Cristina Menghini, Ross Briden, **Nihal V. Nayak**, Jeffrey Zhu, Elaheh Raisi, and Stephen H. Bach. **TAGLETS: A System for Automatic Semi-Supervised Learning with Auxiliary Data**, *Under Review*, 2021.

**Nihal V. Nayak** and Stephen H. Bach. **Zero-Shot Learning with Common Sense Knowledge Graphs.** *Technical Report, 2020* [PDF][Code].

HONORS AND AWARDS

Received Best Outgoing Student Award (2013 - 2017) from Department of Information Science and Engineering, M.S. Ramaiah Institute of Technology.

Received USD 2000 for winning the 2015 IEEE/IBM Watson Showcase (worldwide competition) [Article].