Jivat Neet Kaur

PhD student, UC Berkeley

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Education

University of California, Berkeley, *Berkeley, CA*   08/2023 - Present
Ph.D. in Computational Precision Health | Berkeley AI Research (BAIR)
Advisors: Ahmed Alaa, Michael I. Jordan

Birla Institute of Technology and Science (BITS) Pilani, *Pilani, India*   08/2017 - 07/2021
Bachelor of Engineering in Computer Science, GPA: 9.23/10.0
Graduated with *Distinction*

Experience

Microsoft Research, *Bangalore, India*   09/2021 - 07/2023
Research Fellow with Amit Sharma, Emre Kiciman

Adobe Research, *Noida, India*   05/2021 - 08/2021
Research Intern with Sumit Bhatia, Balaji Krishnamurthy

Carnegie Mellon University, *Remote | Pittsburgh, USA*   12/2020 - 05/2021
Research Assistant (Bachelor Thesis) with Louis-Philippe Morency

Universität Hamburg, *Remote | Hamburg, Germany*   10/2020 - 05/2021
Research Intern with Chris Biemann

Microsoft, *Bangalore, India*   05/2020 - 08/2020
Software Engineering Intern

Publications

[1] **Conformal Prediction Sets with Improved Conditional Coverage using Trust Scores**
Jivat Neet Kaur, Michael I. Jordan, Ahmed Alaa
Preprint   **arXiv 2024**

[2] **Speaking in Terms of Money: Financial Knowledge Acquisition via Speech Data Generation**
Advait Bhat, Nidhi Kulkarni, Safiya Husain, Aditya Yadavalli, Jivat Neet Kaur, Anurag Shukla, Monali Shelar, Vivek Seshadri
ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies   **COMPASS 2024**

[3] **Modeling the Data-Generating Process is Necessary for Out-of-Distribution Generalization** 📄
Jivat Neet Kaur, Emre Kıcıman, Amit Sharma
Eleventh International Conference on Learning Representations (Spotlight)   **ICLR 2023**
Workshop on Spurious Correlations, Invariance, and Stability, ICML 2022 (Spotlight)

[4] **Towards Modular Machine Learning Pipelines** 📄
Aditya Modi, Jivat Neet Kaur, Maggie Makar, Pavan Mallapragada, Amit Sharma, Emre Kiciman, Adith Swaminathan
ICML Workshop on Localized Learning (LLW)   **LLW, ICML 2023**

[5] **LM-CORE: Language Models with Contextually Relevant External Knowledge** 📄
Jivat Neet Kaur, Sumit Bhatia, Milan Aggarwal, Rachit Bansal, Balaji Krishnamurthy
2022 Conference of North American Chapter of the Association for Computational Linguistics   **NAACL Findings 2022**

[6] **CoSe-Co: Text Conditioned Generative CommonSense Contextualizer** 📄
Rachit Bansal, Milan Aggarwal, Sumit Bhatia, Jivat Neet Kaur, Balaji Krishnamurthy
2022 Conference of North American Chapter of the Association for Computational Linguistics   **NAACL 2022**

[7] **Modern baselines for SPARQL Semantic Parsing** 📄
Debayan Banerjee, Pranav Ajit Nair*, Jivat Neet Kaur*, Ricardo Usbeck, Chris Biemann
The 45th International ACM SIGIR Conference on Research and Development in Information Retrieval   **SIGIR 2022**

[8] **Ask & Explore: Grounded Question Answering for Curiosity-driven exploration** 📄
Jivat Neet Kaur, Yiding Jiang, Paul Pu Liang
Workshop on Embodied Multimodal Learning, ICLR   **EML, ICLR 2021**

[9] **Simulation and Selection of Detumbling Algorithms for a 3U CubeSat** 📄
Vishnu P Katkoori, <u>Jivat Neet Kaur</u>, Tushar Goyal
70th International Astronautical Congress (Oral)   **IAC 2019**

[10] **Language Model with External Knowledge Base**
<u>Jivat Neet Kaur</u>, Sumit Bhatia, Milan Aggarwal, Rachit Bansal, Balaji Krishnamurthy
US Patent Application, 17/897,419

[11] **Generating Commonsense Context for Text using Knowledge Graphs**
Rachit Bansal, Milan Aggarwal, Sumit Bhatia, <u>Jivat Neet Kaur</u>, Balaji Krishnamurthy
US Patent Application, 17/526,824

Awards and Honors

Department of Computer Science Graduate Program Recruitment Award & Faculty of Arts and Science Doctoral Recruitment Award   University of Toronto (*declined*)

Neubauer Graduate Scholarship   Computer Science, University of Chicago (*declined*)

Annenberg Fellowship 2022-2023   Computer Science, USC Viterbi School of Engineering (*declined*)

Spotlight at ICLR 2023   Paper accepted as notable-top-25% for oral presentation at ICLR 2023.

Spotlight at SCIS, ICML 2022   1 of 5 papers selected for oral spotlight presentation at ICML SCIS workshop.

Microsoft Global Hackathon, 2022 | Third Place   Developed an Android application integrated with a braille reader to enhance digital exposure and improve braille literacy of children in schools for the blind.

Prof. V S Rao Foundation Best All-Rounder Award 2021   For excellence in academics, leadership, service, and sports.

Grace Hopper Celebration India (GHCI) Scholarship, 2020   Awarded travel grant to attend the GHCI conference.

International Conference on Small Satellites, 2019 | Third Position   Student satellite project competition.

Institute Merit Scholarship, 2018   Awarded by Dean, BITS Pilani to top 2% students for exceptional academic excellence.

Kishore Vaigyanik Protsahan Yojna (KVPY) Fellowship, 2016   Awarded to the top 2.5% students out of over 100,000 applicants by Dept of Science and Technology, Govt. of India as recognition of scientific research aptitude.

Academic Service

Reviewer	ICML 2025, ICLR 2025, NeurIPS 2024, AAAI 2023, ICDM 2022 Workshop on Foundation Models in Vision and Language
Organizer	Machine Learning for Health (ML4H) 2024 (Outreach Subchair)
Facilitator	WiML Un-Workshop @ ICML 2021
Volunteer	NAACL 2022, NeurIPS 2021, EMNLP 2021, ACL 2021, ICML 2021
Panelist	UC Berkeley Statistics Graduate School Information Panel

Skills and Relevant Coursework

Languages	Python, C, C++, Java, HTML, MATLAB
Software	PyTorch, Tensorflow, Git, Elasticsearch, LaTeX
Coursework	Linear Algebra, Theoretical Statistics, Advanced Statistical Learning, Calculus, Differential Equations, Number Theory, Image Processing, Natural Language Processing, Deep Unsupervised Learning, Machine Learning and Statistical Modeling for Healthcare (Causal Inference)

Teaching and Leadership

Causal Machine Learning Reading Group, Microsoft Research India *Founding Member*   2021 - 2023
> Started a weekly reading group to discuss research in causal inference, machine learning, and related areas.

Child Rights and You (CRY) [⦿] *Volunteer*   2021 - 2023
> Actively involved in conducting online classes and awareness sessions for children from low-income backgrounds.

Data Mining (CS F415) *Teaching and Lab Assistant*   Fall 2020
> Conducted lab sessions and created learning resources in Python and IBM SPSS Modeler for the class.

Neural Networks and Fuzzy Logic (BITS F312) *Teaching Assistant*   Spring 2020

> Designed coding assignments for over 150 students and conducted workshops on Python deep learning frameworks such as Tensorflow and PyTorch. Advised students in their research paper implementations; projects I mentored: 📄 📄

Scholarship Track [◎] *India Chapter Head and Global Lead Ambassador*   2020 - 2021

> Led initiatives to make education and opportunities accessible by increasing awareness of scholarships and resources.

Team Anant (student satellite team) [◎] *Attitude Determination and Control Subsystem*   2018 - 2020

> Team Anant is developing BITS Pilani's first nanosatellite. Implemented the BDot law to control the high angular velocity of the satellite after deployment; also worked on code optimization for On-board Computer system of the satellite.

Basketball Team *Vice Captain*   Fall 2018

> Led the Girls' Basketball Team for Bits Open Sports Meet'18 (BOSM) - annual sports fest of BITS Pilani.