Kiran Purohit

My Homepage: kiranpurohit.github.io
Email: kiran.purohit789@gmail.com
LinkedIn: kiranpurohit789
Google Scholar, Reasearch Gate

EDUCATION

IIT Kharagpur   West Bengal, India
Ph.D. Scholar (Chanakya Fellow), Computer Science & Engineering   2020–2025
Supervisor: Prof. Sourangshu Bhattacharya; **Research Areas:** Trustworthy and Scalable AI

NIT Durgapur   West Bengal, India
M.Tech, CGPA: 9.15/10   2018–2020

PUBLICATIONS

[1] **K. Purohit**, Venktesh, S. Bhattacharya, and A. Anand, "Chalsamp: A challenger sampling-based top-m arm identification for in-context exemplar selection", 2024 (Submitted).

[2] **K. Purohit**, S. Das, S. Bhattacharya, and S. Rana, "A data-driven defense against edge-case model poisoning attacks on federated learning", in *Twenty Seventh European Conference on Artificial Intelligence (ECAI)*, 2024.

[3] **K. Purohit**, A. Parvathgari, and S. Bhattacharya, "A greedy hierarchical approach to whole-network filter- pruning in cnns", in *Transactions on Machine Learning Research (TMLR)*, 2024.

[4] **K. Purohit**, Venktesh, Raghuram, Krishna, Sourangshu, and Avishek, "Explora: Efficient exemplar subset selection for complex reasoning", in *Empirical Methods in Natural Language Processing*, 2024.

[5] **K. Purohit**, Anurag, Soumi, and Sourangshu, "Accurate and efficient channel pruning via orthogonal matching pursuit", in *Second International Conference on AIML Systems*, 2023, ISBN: 978-1-4503-9847-3.

[6] **K. Purohit**, A. Kesarwani, D. Ranjan Kisku, and M. Dalui, "Covid-19 detection on chest x-ray and ct scan images using multi-image augmented deep learning model", in *Seventh International Conference on Mathematics and Computing*, Springer Nature Singapore, 2022, pp. 395–413, ISBN: 978-981-16-6890-6.

[7] A. Kesarwani, **K. Purohit**, M. Dalui, and D. R. Kisku, "Measuring the degree of suitability of edge detection operators prior to an application", in *Applied Signal Processing Conference*, 2020, pp. 128–133.

EXPERIENCE

AICTE QIP PG Certificate Programme   West Bengal, India
Teaching Assistant: AICTE QIP PG Certificate Programme for Core Engineering Faculty   July 2024 - Sep 2024

Virginia Tech - IIT Kharagpur   Virgina & West Bengal, India
Teaching Assistant: Joint Certification Program In Business Analytics and AI   Dec 2023 - Sep 2024

Indian Institute of Technology Kharagpur   West Bengal, India
Teaching Assistant: Mentored B.Tech and M.Tech students in Term Projects   Dec 2020 - Current

National Institute of Technology Durgapur   West Bengal, India
Teaching Assistant: Helped B.Tech students in Lab assignments   Jul 2019 - Jun 2020

Defence Research and Development Organisation (DRDO)   Uttrakhand, India
Trainee: Developed a website for automation of complaints registered.   Jun 2016 - Jul 2016

Projects

- **Course Content Management System (CCMS)** (2017)
  Worked on this project in B.Tech using Front End-PHP & Back End-MySql
  It provides framework for teaching and management of online course content.

- **SeasonsWay: Shopping Site** (2016)
  Worked on this Project in B.Tech using Front End-JSP & Back End-MySql
  A shopping website that is mainly for the locals of Tehri and Baurari.

- **Network Docket Management System** (2016)
  Worked on this Project at **DRDO** using Front End-ASP & Back End-Oracle
  Generates a distinct docket number for every complaint registered with date.

Scholarships & Awards

- Prime Minister's Scholarship Scheme for CAPF & Assam Rifles   2013–2017
- BSF Director General's Merit Scholarship   2013–2014
- MHRD Gate Scholarship   2018–2020
- Institute Fellowship for PhD   2020–2025
- AI4ICPS Chanakya PhD Fellowship   2024–2025

Technical Skills

- **Programming Languages:** C, C++, Python, Java, PHP, ASP, C#, HTML, CSS
- **Frameworks:** Pytorch, Tensorflow, Keras, spacy, nltk, scikit-learn, Pandas, numpy

Popular / News Articles / Media Coverage

- COVID-19 Detection, Genomics & Health Impact Weekly Scan — PHGKB, Jul 2020. Our paper got enlisted in the **Centers for Disease Control & Prevention under the US Department of Health.**
- COVID-19 Detection Literature Situation Report, Our COVID-19 work was featured in the Daily Newsletter of the **Department of Global Health, University of Washington.**

Extracurricular Activities

- English Debate, English Essay Writing, Hindi Extempore Speech, Quiz Competition, Science Quiz Competition, Sanskrit Shloka Recitation, Calligraphy, Hindi Essay Writing, Mono Acting and Group Song.
- Yoga, Swimming and Table Tennis enthusiast

References

- Dr. Sourangshu Bhattacharya, Associate Professor in CSE, IIT Kharagpur, sourangshu@cse.iitkgp.ac.in
- Dr. Avishek Anand, Associate Professor in the Software Technology, TU Delft, Avishek.Anand@tudelft.nl
- Dr. Santu Rana, Associate Professor in Computer Science, Deakin University, Australia, santu.rana@deakin.edu.au
- Mr. Ravi Shanker Sharma, Scientist-D in DEAL-DRDO, Dehradun, ravisssharma@deal.drdo.in