Kanishk Verma

🖾 kanishk.tcet@gmail.com 🖁 kanishk-verma 🏈 kanishk-r-verma.github.io in kanishk-verma

Education

PhD Computer-Social Science

Sept 2021 - August 2025

Dublin City University, Ireland

o Thesis: Data-driven Toolkit to Combat Cyberbullying amongst Teens (project website 🗹)

MSc. Computer Science

Sept 2019 - August 2020

Dublin City University, Ireland

Thesis: Implicit aspect-based opinion mining and analysis of airline industry based on user-generated reviews. (research article

Bachelor of Engineering in Information Technology

Aug 2012 - July 2016

University of Mumbai, India

Coursework: Relational database management systems, Data structures and algorithms, Web programming,
 Object Oriented Programming

Experience

Research Experience

Associate Researcher Dublin, Ireland

DCU Anti Bullying Centre, UNESCO Chair on Bullying and Cyberbullying

Sept 2020 - Present

- o Collaborated with interdisciplinary teams of researchers in response to the *Coimisiún na Meán : Online Safety Code Call for Inputs*, driving the development of evidence-based strategies that enhance online safety measures and promote a secure digital environment. This work involved managing ambiguity in research scope and expected outcomes, as well as employing empathy to understand and address the nuances of cyberbullying's impact on diverse communities. (Article 🗹)
- Actively participate in regular strategic meetings, providing innovative insights and recommendations that shape ongoing research initiatives and future projects at the center, thus fostering a collaborative culture and promoting the integration of diverse perspectives.
- Facilitate workshops and discussions to bridge the gap between computational methods and social science research, promoting interdisciplinary dialogue and the application of technology to address complex social issues.

Research Assistant
Adapt Centre, SFI
Sept 2020 - Aug 2021

- Conducted comprehensive meta-analysis of 150+ academic papers and industry tools, leveraging large-scale data processing techniques to extract actionable insights on cyberbullying detection strategies for Meta's (Facebook/Instagram) Content Policy Grant project.
- Engineered comprehensive experiments with state-of-the-art machine learning and deep learning algorithms, achieving 81% average F1 scores in classifying cyberbullying-associated user-generated content.
- Led cross-functional collaboration between social and computational science experts, designing and facilitating multiple co-design focus group studies with 30+ teenagers to develop data-driven, socially-informed cyberbullying prevention strategies.

Industry Experience

Data Scientist Intern

Dublin, Ireland

Radmol AI

March 2020 - Aug 2020

• Developed an intelligent framework utilising language modelling, and deep learning techniques, reducing physicians analysis time of colorectal cancer radiology reports by 15%.

Conducted statistical analyses, including hypothesis testing to validate model performance and ensure clinical relevance of AI-driven insights.

Software Analyst
Accenture

Mumbai, India
Nov 2016 – May 2019

- Designed and implemented an automated reporting system utilising relational databases and SQL queries, integrating with Selenium and Java, resulting in a 12% boost in efficiency of social media content moderation client over a fiscal year.
- Led multiple knowledge transition sessions with diverse stakeholders, driving 8% time savings for client businesses through optimised knowledge sharing and streamlined processes.

Teaching Experience

Teaching Assistant (Part Time)

Dublin, Ireland

Dublin City University

Sept 2021 – Present

\circ Introduction to Python Programming & R Programming (First-Year Students)

- Conduct weekly tutorials for students from various disciplines (School of Computing, Business, Physics, Psychology, Chemistry, and Language Studies).
- Assist students with hands-on coding exercises and tutorial assignments, reinforcing key programming concepts by providing one-on-one and group supports.

• Object-Oriented Programming (Second-Year Computing Students)

- Conduct tutorial sessions that focus on essential object-oriented programming concepts and data structures, including arrays, linked lists, stacks, queues, trees, and graphs.
- Assist with tutorial assignments and lab exercises, helping students debug code and improve their implementation skills.

o Comparative Programming Languages (Third-Year Students)

- Facilitate tutorials exploring differences between programming paradigms, including functional, logical, and object-oriented programming.
- Assist in the grading of assignments and coursework and organise additional sessions to clarify abstract concepts and support coursework and projects.

Final-Year Project Supervision (Bachelor of Data Analytics & Bachelor of Business Computing & Masters in Computing)

- Provide technical and conceptual guidance to students working on their final-year projects.
- Assist and supervise in defining research questions, data collection methods, and implementation strategies.
- Review student's code, reports, and presentations, offering feedback on improvements.
- Help students troubleshoot technical challenges and optimize their project implementations.

Lecturer (Part Time)

Dublin, Ireland

Institute of Business and Technology (IBAT)

Jan 2024 - Present

o Business Mathematics

- Design and develop comprehensive course content, including lecture slides, study materials, and examination papers.
- Deliver lectures covering fundamental and advanced mathematical concepts applicable to business, including Linear Algebra, Calculus and its application in business (marginal analysis, optimization techniques, etc).
- Assess students through continuous evaluation, assignments, and examinations to ensure learning outcomes were met.
- Provide additional support through extra sessions for students struggling with mathematical principles.

• Certificate in Access for Higher Education – Introduction to Computers

- Design course materials, assessments, and hands-on tutorials for an introductory computing course

- aimed at preparing students for higher education from a wide age range (17–54), customizing lessons to cater to different levels of familiarity with technology.
- Deliver lectures and practical workshops covering foundational computer skills, including MS Office Suite, File System Management, Advanced Excel Techniques.
- Created and administered assessments to track student progress and provide feedback on areas of improvement.

Technical Skills

- Languages: Python, R, C++, Java, SQL.
- Frameworks: PyTorch, Hugging-Face Transformers, LoRA (Low-Rank Adaptation), Selenium, Multimodal LLMs (MLLM).
- o Cloud Technologies: AWS (EC2, S3), Google Cloud Platform (GCP), Firebase.
- o Web Development Frameworks: Django, Flask, Dash.

Awards & Honors

• Early Stage Researcher of the Year, 2024

Recognized as Early Stage Researcher of the Year by the ADAPT Centre (Science Foundation Ireland) for PhD research with significant societal impact, funded by a prestigious Google and Irish Research Council Fellowship, and producing impactful publications in the field. (Article 🗹)

• Best Student Contribution Award, 2024

Awarded the best student contribution award by the Adapt - Science Foundation Ireland Research Centre, for leading and contributing to interdisciplinary projects at the 3rd ADAPT Annual Scientific Conference, Ireland (2024). (Article 🗷)

o Online Content Safety Fellowship, 2021

Awarded the prestigious Irish Research Council (IRC) and Google Ireland fellowship to conduct a 4-year doctoral research project on online safety. (Article \square)

Publications

o Journal Articles

1. Leveraging Machine Translation for Cross-lingual Fine-grained Cyberbullying Classification amongst Pre-adolescents

Venue: Journal of Natural Language Engineering; DOI

2. Effectiveness of Artificial Intelligence–Based Cyberbullying Interventions From Youth Perspective

Venue: Social Media + Society; DOI 🗹

o Conference Papers

1. Beyond Binary: Towards Embracing Complexities in Cyberbullying Detection and Intervention - a Position Paper

Venue: Joint International Conference - Computational Linguistics and Language Resources and Evaluation (COLING-LREC) 2024; DOI ☑

2. Examining the Effectiveness of Artificial Intelligence-Based Cyberbullying Moderation on Online Platforms: Transparency Implications

Venue: Association of Internet Researchers (AoIR) Selected Papers of Internet Research (2022); DOI 🗹

• Workshop Papers

1. DCU at SemEval-2023 Task 10: A Comparative Analysis of Encoder-only and Decoder-only Language Models with Insights into Interpretability

Venue: Semantic Evaluation (SemEval) within the Association of Computational Linguistics (ACL 2023); DOI 🔀

2. Can Attention-based Transformers Explain or Interpret Cyberbullying Detection? Venue: Third Workshop on Threat, Agression Cyberbullying (TRAC) within the COLING 2022; DOI

3. Benchmarking Language Models for Cyberbullying Identification and Classification from Social-media Texts

Venue: Workshop on Language Technology and Resources for a Fair, Inclusive, and Safe Society within the 13th Language Resources and Evaluation Conference (LREC 2022); DOI ☑

Professional Development & Service

o Demonstrator, AI in My Life Program (2023 - Present)

Responsible for visiting secondary schools and conducting interactive sessions on artificial intelligence, designed to inspire students (ages 14-15) to explore AI topics and integrate AI into their academic curriculum. The program aims to engage young minds with real-world applications of AI. (Program Link)

o Reviewer, Peer-Reviewed Journals and Conferences

Actively serving as a reviewer for high-impact journals and conferences in the field of AI and computer science, including:

- IEEE Transactions on Affective Computing (Q1 Journal)
- International Journal of Bullying Prevention (Q1 Journal)
- PeerJ Computer Science (Q1 Journal)
- Annual Meeting of the Association for Computational Linguistics (ACL) (A* Conference)

Engaged in evaluating cutting-edge research and providing constructive feedback for publication and conference acceptance.