

GIRISH ARUN KOUSHIK

Guildford, United Kingdom

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EDUCATION

PhD in Computer Science

University of Surrey

2023 – 2027

Guildford, United Kingdom

- Multimodal framework for Hate Speech Detection on Social Media Platforms - supervised by Dr. Diptesh Kanojia.

MSc in Advanced Computer Science with Artificial Intelligence

University of Strathclyde

2022 – 2023

Glasgow, United Kingdom

- Relevant Coursework: Deep Learning for Visual Computing Applications, Game Theory & Multi-Agent Systems, Reasoning for Intelligent Agents, Evolutionary Computation for Finance.

BE in Electronics and Communication Engineering

R.V. College of Engineering (RVCE)

Affiliated to Visvesvaraya Technological University (VTU)

2015 – 2019

Bengaluru, India

- Relevant Coursework: Analog Microelectronics, Digital Logic Design, Artificial Neural Networks, Communication Systems, Microwave & Radiation Systems.

PAPER PUBLICATIONS

1. **Koushik, G. A.**, Kanojia, D., & Treharne, H. (Aug 2024). *Towards a Robust Multimodal Framework for Hate Detection: A Study on Video vs. Image-based Content*. Submitted to AAAI 2025.

Under Review

2. Feng, X., Wan, Z., Yang, M., Wang, Z., **Koushik, G. A.**, Du, Y., Wen, Y., & Wang, J. (Feb 2024). *Natural Language Reinforcement Learning*. ArXiv. <https://arxiv.org/abs/2402.07157>.

Work in Progress

WORK EXPERIENCE

Teaching Assistant in 'Natural Language Processing'

University of Surrey

Feb 2024 – May 2024

Guildford, United Kingdom

- Laboratory demonstrator for postgraduates in COMM061 Natural Language Processing, taught by Dr. Diptesh Kanojia.

Teaching Assistant in 'Foundations of AI'

University of Strathclyde

Jan 2023 – Mar 2023

Glasgow, United Kingdom

- Laboratory demonstrator for Year 3 undergraduates in CS310 Foundations of AI, taught by Dr. Andrew Abel.
- Topics covered: Search Trees, Game Trees, Logic & Planning, and Neural Networks.

Software Development Engineer (AI/ML)

Diatoz Solutions Private Limited

Jan 2021 – Aug 2022

Bengaluru, India

- Development: AI/ML and NLP models.
 - Developed and deployed models for 'e2eHiring', a candidate recruitment platform.
 - Added features: smart hire, candidate and job recommendation system, assessment module, resume parsing service, online video proctoring model.
 - ML open-source contribution: added a feature for haystack (*deepset.ai*).
- Mentorship: trained two interns on machine learning and deep learning.
- Integration: facilitated cross-team collaboration between the AI/ML team and the back-end team.

TECHNICAL SKILLS

Programming Languages and Databases	Python, R, SQLite, MongoDB
Applications and Services	Git, AWS, Docker
Frameworks and Tools	TensorFlow, PyTorch, Scikit-learn, NumPy, Pandas
Operating Systems	Windows, Linux

PROJECTS

Multistream Audiovisual Speech Recognition Final project at University of Strathclyde

- Investigated compact Gabor filter features for visual speech recognition on a challenging large-vocabulary continuous speech dataset (LRS2).
- Developed and evaluated CNN, RNN and transformer models using Gabor features for viseme classification and sequence-to-sequence prediction.
- Analysis provided insights into trade-offs between engineered intuitive features like Gabor filters versus learned representations for audiovisual speech recognition.

Recruitment Technology Platform (e2eHiring) Diatoz Solutions

1. Developed comprehensive AI/ML solutions for end-to-end recruitment automation, including:
 - NLP models for technical skill assessment from interview videos (80% accuracy, ~20s inference time).
 - Custom Question-Answering system for employee training on product documentation.
 - Resume parsing API service processing 50 resumes in <120s with detailed information extraction.
 - AI-powered candidate-job matching system using similarity measures and ranking algorithms.
 - Computer vision-based video proctoring system integrated with AWS S3 for secure online interviews.
2. Created custom datasets and implemented models using Python, TensorFlow, OpenCV, and NLP techniques.

AWARDS AND ACHIEVEMENTS

- Member of the "StrathClust" Team that participated in the CIUK 2023 Cluster Challenge representing the University of Strathclyde and secured third place.
- Awarded 'Faculty of Science' Scholarship to pursue MSc at the University of Strathclyde (2022 – 2023).
- Received 'Pat-On-Back' Award for excellent project performance, Diatoz Solutions (May 2021, July 2022).
- Awarded 'Best Sportsperson' consecutively for four years in RVCE (2015 – 2019).
- 63rd Chess Grandmaster from India, conferred in 2019 by the International Chess Federation (FIDE); also won several international medals like the Silver Medal in the World Youth Chess Olympiad and Gold Medal in the Asian and National Youth Championships.
- Awarded 'The Junior Sportsperson of the Year' by the 'Sportswriters Association of Bengaluru' (2013).
- Bagged the prestigious 'Ekalavya' Award by the State Government of Karnataka in the sports category (2008).

REFERENCES ARE AVAILABLE ON REQUEST