

Muhammad Ibrahim Khan

+44 7470 800092 | Email: ibrahimkhanlive1000@gmail.com | ibrahimkhan4real.github.io

LinkedIn: [ibrahimkhanlive1000](https://www.linkedin.com/in/ibrahimkhanlive1000) | GitHub: [Ibrahimkhan4real](https://github.com/ibrahimkhan4real)

Coventry, United Kingdom

EDUCATION

- **Coventry University** Sep 2024 - Present
Doctor of Philosophy (PhD) in Reinforcement Learning Coventry, United Kingdom
 - Thesis: Predictive Control Through Monte Carlo Tree Search
 - Expected Graduation: March 2028
- **National University of Sciences and Technology** Sep 2019 - Jun 2023
Bachelor of Engineering (BEng) in Mechanical Engineering Islamabad, Pakistan
 - Project: Autonomous Weeding Robot

RESEARCH PUBLICATIONS

- **Learning from Less: SINDy Surrogates in RL.** (ICLR 2025)
[DOI: 10.48550/arXiv.2601.18123](https://doi.org/10.48550/arXiv.2601.18123)
- **Deadline-Aware, Energy-Efficient Control of Domestic Immersion Hot Water Heaters.** (AAAI 2026)
[DOI: 10.48550/arXiv.2504.18113](https://doi.org/10.48550/arXiv.2504.18113)

WORK EXPERIENCE

- **Coventry University** Aug 2025 - Jan 2026
Teaching Assistant and Lab Demonstrator Coventry, United Kingdom
 - Delivered weekly labs for 30+ MSc Data Science students in Deep Learning and Computer Vision module
 - Graded 200+ assignments per semester, providing detailed feedback.
 - Collaborated with faculty to improve course materials and delivery, enhancing the overall learning experience.
- **CureMD** Jul 2023 - Sep 2024
Associate AI Engineer Lahore, Pakistan
 - Architected and deployed in-house LLM-powered code assistant using RAG with Mixtral 8x7B that reduced the code review time by 25%+ across 150+ developers.
 - Fine-tuned LLMs on proprietary codebase to create domain-specific chatbot for software specialists, enhancing internal knowledge sharing and productivity.
 - Deployed production RAG-based chatbot processing 500+ daily customer queries with 80% faster response time and 92% resolution accuracy.
 - Automated code grading using Llama 3, evaluating 100+ candidates in under one minute through logic analysis and black-box testing, streamlining the recruitment process.
 - Developed ML/DL solutions for internal productivity and US healthcare industry products, contributing to the company's innovation pipeline.

TECHNICAL SKILLS

- **Programming Languages:** Python (expert), C++, MATLAB
- **ML/DL Frameworks:** PyTorch, TensorFlow, Keras, Scikit-learn, OpenCV, Hugging Face Transformers
- **RL Frameworks:** Stable Baselines3, RLlib, Gymnasium, MuJoCo
- **Data Science:** NumPy, Pandas, Matplotlib, Seaborn, Plotly
- **LLM & NLP:** Langchain, RAG, Fine-tuning (LoRA)
- **DevOps & Tools:** Git, Docker, Linux, Jupyter, Weights & Biases, TensorBoard

HONORS AND AWARDS

- **Fully Funded PhD Scholarship**

Sep 2024

Coventry University

- Awarded a fully-funded PhD studentship at the Centre of Computational Science and Mathematical Modelling (CSMM).

- **Second Runner-Up, Prime Minister's National Innovation Award 2023**

Jul 2023

Government of Pakistan

- Awarded 2nd Runner-Up among 40,000+ national submissions for "Autonomous Weeding Robot" demonstrating innovation at the national level.

REFERENCES

References available upon request.