Shahid Kamal

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EDUCATION

Northeastern University Boston, MA
MS Electrical and Computer Engineering Expected Dec 2026
Relevant Coursework: Machine Learning Operations, Large Language Models, Machine Learning, Deep Learning, Advanced Computer Vision, Reinforcement Learning, Algorithms, Robotics Sensing and Navigation

Aligarh Muslim University India
B.E Electrical Engineering 2019-2023

SKILLS

Programming Languages: Python, MATLAB, C, C++, SQL
Machine Learning frameworks: TensorFlow, PyTorch, Keras, Numpy, Matplotlib, Pandas, Scikit-learn,
Robotics: ROS 2, SLAM, Robotics Perception, Sensor Fusion, Kalman Filter, Navigation
Tools: Git, GitHub, AWS, GCP, CI/CD Integration, Docker, Kubernetes
Hardware: Microcontrollers, Sensor Integration, Embedded Systems

EXPERIENCE

Checkit Analytics -Data Science Intern (California, United States) Jan 2026 – Present
- Built LLM-based RAG pipelines for grounded financial question answering and analytics
- Fine-tuned and deployed Qwen3-4B as the in-house backbone LLM, eliminating external API costs
- Prototyped and shipped AI products using Python, SQL, and AWS in cross-functional teams

Centre of Advanced Research in Electrified Transportation -Research Intern (Aligarh, India) Dec 2022-Feb 2023
- EV battery systems suffered from inefficiencies, leading to high energy loss during charging
- Optimized EV Battery Management System using Machine Learning, improving charging efficiency by 7%
- Used Random Forrest and LSTMs, reducing energy loss during charging by 10%

Indian Institute of Information Technology- Summer Research Fellow (Allahabad, India) June 2022 – July 2022
- Worked with the research team on developing a dynamic routing mechanism in Capsule Neural Networks
- Researched different Routing mechanisms in CNNs and presented findings in the seminar
- Developed a hybrid architecture inception_efficientcaps for dynamic routing in CNN Networks

PROJECTS

Jobly – Agentic Job Search & Outreach Platform
- Built a multi-agent, agentic AI system automating job search, outreach, tracking, and interview prep
- Designed LLM agents for resume tailoring and personalized recruiter email/LinkedIn messaging
- Implemented a stateful automation pipeline with human-in-the-loop controls and persistent memory

Lab Lens – Healthcare AI and MLOps Project
- Built an end-to-end healthcare AI system for medical report summarization, diagnostic image analysis, and risk prediction
- Implemented a RAG Q&A pipeline enabling semantic search and patient-friendly insights from complex medical reports
- Designed MLOps workflows with model evaluation, monitoring, and bias checks for reliable and scalable deployment

Detection of COVID-19 from Chest X-ray images using Deep Learning Techniques
- Designed a custom CNN achieving 97.2% accuracy in COVID-19 classification using deep learning
- Implemented model compression and acceleration techniques to enable deployment on resource-constrained hardware
- Evaluated and validated performance on real-world CXR datasets, achieving clinical-level detection metrics

PUBLICATIONS

- U. Farooq, **S. Kamal** and M. Sarfraz, "**Deep Learning Model for Edge Devices for COVID-19 Detection from CXR Images**," *2024 Tenth International Conference on Bio Signals, Images, and Instrumentation (ICBSII)*, Chennai, India, 2024, pp. 1-6
- **Shahid Kamal,** Dr. Mohammad Sarfraz, Sumaiya Fatma, Ifat Al Fatma, Shagufta Parween, Muhammad Al Maathidi, "**Comparative Analysis of deep learning techniques for fast detection of COVID-19 using CXR images",** Proceedings of International Conference on Advances i*n* Computational Intelligence and its Applications*,* 2023, **Taylor and Francis, CRC Press**,