

# Shahid Kamal

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## EDUCATION

### Northeastern University

MS Electrical and Computer Engineering

Boston, MA

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, Algorithms

### Aligarh Muslim University

B.E Electrical Engineering

India

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 in Computational Intelligence and its Applications, 2023, Taylor and Francis, CRC Press,