

# Salman Ajmal

26100177@lums.edu.pk | [LinkedIn](#)

## Education

### Lahore University of Management and Sciences

BSc. Computer Science

- Deans Honors List
- Pursuing a minor in Economics

May, 2026  
Lahore, Pakistan

### Cedar College

A Levels, Cambridge International Examinations

- Dean's List
- Merit Scholarship

May, 2022  
Karachi, Pakistan

## Experience

### Teachers Assistant

Digital Logic Circuit and Design | LUMS

Jan. 2025 – Present

Supervised weekly lab sessions on hardware modeling, circuit simulation, and digital design; mentored multiple advanced projects focused on state machines, system architecture, and high-level hardware design.

### Promotions and Publications Lead

June, 2023 – June 2024

LUMS Mathematics Society | LUMS

Led strategic social media campaigns and managed financials for a nationwide SIGMA math competition module, managing a 20-member team and coordinating 200+ student participants across Pakistan.

## Research Projects

### Vision Transformer Compression

Jan. 2025– Present

Deep Learning | LUMS

Developed a compact ViT training framework leveraging saliency maps for guided distillation and curriculum learning for improved generalization. The project, conducted under the supervision of Dr. Murtaza Taj, involved extensive literature review of existing ViT architectures and key advancements in computer vision.

## Development Projects

### EmCon – Hospital Lookup & Blood Request Platform – Software Engineering

Built a multi-user web platform connecting multiple hospitals, with distinct interfaces for patients, medical staff, and administrators. Features real-time blood requests, ML based wait-time predictions, and an interactive navigation chatbot. Developed using React, Node.js, Express, and MongoDB with extensive UI/UX iterations for optimal user experience

### Consumer Behavior Analytics – Data Science

Analyzed large-scale consumer datasets to forecast sales revenue and uncover purchasing trends using machine learning models. Applied clustering algorithms to segment customers based on behavioral patterns, enabling data-driven insights for targeted marketing and revenue optimization.

### News Recommendation System – Machine Learning

Built an end-to-end pipeline to scrape news articles from the web and classify them into relevant categories using NLP techniques. Used multiple models to optimize classification accuracy for real-world news filtering and content recommendation systems.

### Filesystems, Threads & Memory – Operating Systems

Completed a series of project-based implementations focused on core operating system components, including a simplified UNIX file system, a POSIX-compliant threading library, and a dynamic memory allocator. Emphasized hands-on development to optimize resource management, concurrency, and system performance.

### Network-Centric Computing & Network Security

Developed a scalable Distributed Hash Table (DHT) for decentralized systems with robust protocols for fault tolerance and data optimization; implemented secure OAuth 2.0 authentication and standards-compliant login systems to enhance web application security and prevent common vulnerabilities.

### Data Structures & Algorithms

Completed challenging projects across two intensive courses, applying and optimising advanced data structures for real-world problems. Demonstrated strong algorithmic thinking and theoretical depth through custom implementations and complex problem-solving.

## Certifications

### Data Science Summer School

Data Science Lab | Hertie School, Germany

Completed an intensive 2-month, remote Data Science course led by experts from the Hertie Data Science Lab. Gained hands-on experience in Python, machine learning, data visualization, and applied statistics. Collaborated with an international cohort of peers on data-driven research projects

### Deep Learning Specialisation

DeepLearning.AI, Stanford University

Completed an advanced sequence of neural network modules covering high-dimensional function approximation, convolutional architectures, and sequential modeling with practical TensorFlow implementations.

## Technical Skills

Languages: C/C++, Python, Java, TypeScript, HTML/CSS

Frameworks : React, ExpressJS, PyTorch, TensorFlow, MongoDB

Tools : Linux, Git, Docker, Postman, WordPress, VS Code, STATA