

CURRICULUM VITAE OF SYED OMER ALI

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EDUCATION

AVILA UNIVERSITY

Kansas City, MO, USA
Master's in computer/information technology services administration and management.
GPA: 3.71/4.0 • Expected Graduation: 2026

(2024-Present)

MAHAVEER INSTITUTE OF SCIENCE AND TECHNOLOGY.

Hyderabad, Telangana, India
Bachelor's in computer science engineering.

(2019-2022)

QULI QUTUB SHAH DIPLOMA/POLYTECHNIC COLLEGE

Hyderabad, Telangana, India
Diploma in computer mechanical engineering.

(2016-2019)

ACADEMIC RESEARCH AND INTEREST

RESEARCH INTEREST:

On-Device and Resource-Efficient Machine Learning • Edge AI • Model Compression & Optimization • Continual & Lifelong Learning • Systems and Database Optimization for ML Pipelines

Graduate Research

(2024–Present)

- Designed lightweight architectures with CNN and VGG16-based models, which attained 23% model size reduction and 18% less inference latency.
- Implemented selective layer fine-tuning in PyTorch on-device adaptation time reduced from 22s to 9s.
- Built synthetic data augmentation pipelines that improved model performance on limited datasets by 11 to 14%.
- Improved SQL pipelines using MySQL/PostgreSQL for 30 or 40% faster data retrieval and lowered end to end latency.

Undergraduate Research Human Activity Recognition

(2021–2022)

- Built a HAR model using CNN/VGG16 with an accuracy of 96.95% using Python/PyTorch.
 - Applied transfer learning and OpenCV based feature extraction for real-time human action recognition.
 - Designed the complete pipeline to process video frames and classify activities.
 - Exploited RFID signal patterns and ML algorithms for enhanced motion interpretation.
- Led a team developing CNN models, which were trained on the kinetics action recognition dataset.
- Implemented various operations of OpenCV2 for preprocessing and generating model-ready inputs.

Detecting phishing attacks using Python:

(2022)

- Created a Python based phishing detection system that utilizes natural language processing methods to analyze the content of emails, links, and attachment metadata.
- Utilized machine learning classifiers to identify suspicious patterns linked with phishing and social engineering.
- Integrated rule based validation with 3rd party threat intelligence checks to improve detection accuracy.
- Wrote scripts for the detection of malicious permission behavior like ransomware patterns, such as WannaCry.
- Designed the system to keep itself updated continuously, since phishing or brute force attack signatures change with time.

CAREER HIGHLIGHTS AND MENTORING

Accentel Software Solutions

(2022-2024)

Software Developer to Tech Team Lead

- Backend systems, database workflows, and server-side logic were developed and maintained to suit large-scale applications.
 - Implemented monitoring systems for both iOS and Android applications to assist in logistics and network field operations.
 - Mentored junior developers as a team lead at Accentel Software Solutions.
 - Engineered responsive and high-performance interfaces by integrating the front-end with back-end components.
 - Led client interactions, prepared SRS documentation, and translated the requirements into technical specifications.
 - Managed production environments C-Panel operations, deployments, and live server maintenance.
 - Supervised and mentored a developer team to assure delivery quality and adherence to deadlines for continuous improvement.
 - Conducted code reviews and optimized scripts for reliability, clarity, and system-level efficiency.
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HRH Pvt. Ltd

(2020-2022)

- Managed operational workflows on OneView, Workforce, and Freshdesk, among others. Ensured smooth data and process handling.
- Maintained and updated the organizational profiles and internal databases. Displayed strong analysis and problem-solving skills.
- Worked with clients to define KPIs, simplify workflows, offer prompt problem-solving, and provide updates as required.
- Supported production operations deployment of servers, monitoring, and managing backups.
- Proactively adopted new tools and industry practices to enhance process efficiency and reduce operational bottlenecks.

Creatick Solutions

(2018-2019)

- Developed and maintained responsive web applications using HTML, CSS, JavaScript, jQuery, and modern frameworks such as React.js, Angular, and Vue.js.
- Analyzed client requests for changes, optimized workflows, and delivered refreshed UI/UX solutions.
- Managed domain configurations and performed related P2P connection, client side deployment tasks.
- Designed web layouts and prototypes using Figma and CodePen, respectively, to make the development process efficient.
- Gained foundational experience in full stack development, and strengthened interest in software engineering.

ACTIVITIES AND PRESENTATION

Student Journal App

(2018)

- Spearheaded the development of QQ App, an integrated Android-based student portal for results, laboratory tasks, and service requests.
- Proposed and delivered the prototype to the HOD in two months' time its iOS version was later expanded by successors.
- Improved accessibility for more than 300 students demonstrated early leadership in system design.

Exploring RAT and System security issues

(2020)

- Analyzed emerging Remote Access Trojan (RAT) infections on Android devices < Android 9.
- Built a prototype tool that detects malicious permission takeover, force-revoking unauthorized admin access.
- Presented findings to the faculty the project strengthened interest in system security and secure device level controls.

SHA-256 Secure Online Voting System (Hackathon)

(2021)

- Designed an online voting prototype using SHA-256 hashing to securely verify votes and prevent tampering.
- Designed vote signature generation, validation logic, and backend security flow.
- Delivered functional system during hackathon, recognized for strong security integration.

SKILLS

Programming: Python, JavaScript, PHP, C++

ML: CNNs, VGG16, Transfer Learning, Data Augmentation, Model Optimization, OpenCV

Web & Backend: Node.js, Django, Laravel, HTML5, CSS3, React, Bootstrap

Databases: MySQL, PostgreSQL, MongoDB

Algorithms & DSA: Graphs, Trees, Hashing, Sorting, Searching, BFS/DFS, Dijkstra, Greedy Algorithms, Model Compression.

System Skills: SDLC, API Integration, Server Deployment, Production Debugging

Problem Solving: Analytical reasoning, debugging, system optimization

Soft Skills: Documentation, Time Management, Learning Agility, Creative Solution Design

CERTIFICATION AND AWARDS

- Optimal System Solution Award — **OSPS** (2023)
- Python Certification — **Progate** (2022)
- IoT (Raspberry Pi) HAR Project Winner — **PanTech** (2021)
- Cybersecurity Ethics Certification — **Udemy** (2020)
- Excelerate Hackathon Winner — **JNTUH** (2020)
- SHA-256 Voting System Hackathon Winner — **Badruka Engineering College** (2019)
- Industrial Training Certification — **Creatick Solutions** (2019)

IMPORTANT LINKS

- **GitHub:** github.com/excel16061
- **LinkedIn:** [linkedin.com/in/syed-omer-ali-0069801ab](https://www.linkedin.com/in/syed-omer-ali-0069801ab)
- **Portfolio:** excel16061.github.io/SYED-OMER-ALI/