

Mohtashim Maaz Syed

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Professional Overview

Innovative and results-driven **Software Developer** and **Machine Learning Engineer** with hands-on experience in developing **AI-powered** applications, **deep learning models**, and scalable **full-stack systems**. Skilled in **Python**, **JavaScript**, and **C#**, with a strong foundation in **data structures**, **algorithms**, and **cloud-based deployment**. Experienced in computer vision, **NLP**, and real-time model integration for **defense**, **security**, and **automation domains**. Passionate about transforming research into practical solutions through applied AI, deep learning, and system optimization.

Education

Masters in Computer Science | Texas A&M University Corpus Christi, Texas | **GPA:** 3.6

May 2025

Bachelors in Computer Science Engineering | Osmania University, India | **GPA:** 3.0

Jul 2023

Professional Experience

Software Developer & ML Research Intern | Defense Research and Development Laboratory (DRDL), India | Jun 2022 – Aug 2022

- Delivered sub-millisecond interrupt precision by developing C# & Python systems for MIL-STD-1553 communication avionics
- Achieved 86% accuracy & 0.66 Jaccard Index by implementing U-Net segmentation models on aerial imagery using TensorFlow
- Improved model efficiency 3x through optimized preprocessing: patchification and one-hot encoding for satellite datasets
- Enhanced segmentation robustness 22% via contrast-based error analysis; published research on real-time defense applications

Networking Intern | Cisco Networking Academy (Remote)

May 2022 - Aug 2022

- Configured routers & end devices with IPv4/IPv6, securing enterprise networks, reducing unauthorized access incidents 30%
- Implemented VLANs and routing protocols, improving segmentation & reducing latency by 25% across multi-site infrastructure
- Resolved connectivity issues using troubleshooting, increasing network uptime to 99.8% and reducing support tickets by 40%
- Earned Cisco CCNA: Introduction to Networks certification, validating core skills, boosting credibility in enterprise environments

Project Experience

PhishPatrol: LLM Guardian | AI Security | BERT | PyTorch | Transformers | FastAPI | ONNX

- Built Chrome extension using fine-tuned DeBERTa/BERT, achieving 97.7% accuracy & 0.9976 ROC-AUC on phishing datasets
- Enabled <200ms browser inference via ONNX compression; designed phishing detection for homograph, typosquatting
- EDITBOT – Video Frame Enhancement using GAN Inversion | Deep Learning | Keras | CNN | GANs | Computer Vision
- Built inverted GAN for high-resolution video reconstruction using VGG loss, improving SSIM and perceptual quality metrics 28%
- Proposed novel GAN inversion balancing fidelity and editability; processed 7,800+ images for face restoration & object removal

SMART Personalized Customer Support (AI Chat System) | Full Stack | GPT-4 | Node.js | Express.js | MongoDB | WebSocket (Socket.IO)

- Designed AI-powered support system with GPT-4, handling 100+ queries/sec, boosting satisfaction by 30% prompt engineering
- Built RESTful APIs and socket channels for agent-customer interaction, reducing latency & improving engagement metrics 25%

Semantic Segmentation of Aerial Imagery (U-Net) | TensorFlow | Image Processing | Machine Learning

- Built U-Net model for MBRSC satellite imagery classification, achieving 0.6599 IoU and strong accurate semantic segmentation
- Preprocessed large-scale datasets with rescaling, normalization, one-hot encoding, significantly boosting segmentation accuracy

Certifications

- CyberOps Associate:** Cisco Networking Academy Jan 2023
- R Programming Certification:** Spoken Tutorial Project, IIT Bombay Dec 2022
- Introduction to IoT:** Cisco Networking Academy Jun 2022
- CCNA: Introduction to Networks Certification:** Cisco Networking Academy Aug 2022
- Java Programming Certification:** Spoken Tutorial Project, IIT Bombay

Technical Skills

Programming Languages: Python, JavaScript (TypeScript), C#, Java, SQL, HTML, CSS

Frameworks & Tools: React.js, React Native, Node.js, Express.js, Flask, REST APIs, Git, CI/CD

Machine Learning & AI: TensorFlow, Keras, PyTorch, GANs, U-Net, BERT, Deep Learning, ONNX

Cloud & Databases: AWS, MongoDB, PostgreSQL, SQL Server, Firebase

Other Tools: FastAPI, Docker, Postman, TravisCI, Maven, TensorFlow Serving

Networking & Security: Cisco Networking, IPv4/IPv6 Configuration, Network Security, CyberOps

Core Competencies

Deep Learning & Neural Network Architecture | Computer Vision & Semantic Segmentation | Natural Language Processing (NLP) | Full-Stack Web & API Development | Cloud Deployment & Model Optimization | AI-driven System Automation | Data Preprocessing & Research Pipelines | Real-Time Data Communication Systems | AI Model Design, Training & Evaluation | End-to-End Application Development | Problem Solving & Analytical Thinking | Research Methodology & Experimentation | Version Control (Git/GitHub) | Software Testing & Quality Assurance | Performance Optimization & Scalability | Cross-Functional Team Leadership | Innovation & Creativity | Effective Communication & Presentation | Team Collaboration & Project Ownership | Adaptability & Continuous Learning | Time Management & Organization