Amulya Medhineni

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Professional Summary

Computer Science undergraduate (B.Tech, graduating in 2026) with strong problem-solving skills and hands-on experience in building scalable, secure, and AI-powered backend systems using Java, and Spring Boot. Solid understanding of data structures, algorithms, and distributed systems. Proven ability to work in agile teams, take ownership of projects, and deliver solutions aligned with user needs and large-scale engineering goals.

Technical Skills

Languages: Java, HTML, CSS
Frameworks: Spring Boot, Tailwind CSS
Libraries: TensorFlow, Keras, Scikit-learn, OpenCV
Tools: VS Code Linux
Domains: Distributed Systems, Cybersecurity, Deep Learning, AI/ML, IT Security

Education

B.Tech – Computer Science and Engineering	2022 – 2026
Kalasalingam Academy of Research and Education	CGPA: 8.53/10
Class XII – AP Board	2020 – 2022
Oxford VIT Junior College	Percentage: 94.2%
Class X – AP Board	2019 – 2020
Mana Bala Bharathi School	Score: 584/600

Projects

TrustGate – Zero Trust Access System [GitHub]
Flask, Python, Tailwind CSS, pyotp, qrcode

- Built a secure two-factor authentication platform with QR-based OTP and device registration, aligned with Zero Trust architecture.
- Designed interactive dashboards with IP geolocation and user analytics for threat visualization at scale.
- Replaced SQL with JSON-based distributed data handling, simplifying deployment and improving system scalability.
- Mitigated brute-force attacks using OTP rate limiting and device fingerprinting logic.

Deepfake Detection System [GitHub]
Python, OpenCV, ResNet, LSTM

- Developed a ResNet-LSTM model to identify facial manipulations in videos, achieving 89% accuracy.
- Optimized inference using multiprocessing and frame-wise prediction, reducing processing time by 30%.
- Integrated temporal features to improve model performance on real-time video streams.

Brain Tumor Classification using CNN [GitHub]
TensorFlow, Keras, CNN

- Achieved 92% accuracy on 3,000+ MRI scans for tumor classification using deep CNN architecture.
- Applied normalization and augmentation techniques to increase model robustness and generalization.

Achievements & Certifications

2nd Place – National Hackathon, Thiagarajar College
Led ML model design and frontend development for a winning project among 50+ national teams.

ACM Women's Chapter Member   2024 – Present
Actively contributed to open-source programs and peer-led learning initiatives.

Certifications: Oracle Cloud AI Certified Foundations (OCI), Cisco Certified Ethical Hacker

Domain Specialization

Specialization: Machine Learning, AI, Cybersecurity, Database Systems