

Amulya Medhineni

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Summary

Final-year B.Tech Computer Science student with a strong foundation in **Cybersecurity, AI/ML, and Linux**. Skilled in building secure and scalable applications using **Python, Flask, TensorFlow, and Spring Boot**. Dedicated to developing secure, scalable applications with a strong focus on data protection, automation, and AI-driven decision systems.

Skills

Languages: Python, Java, HTML, CSS
Frameworks: Flask, Spring Boot, Tailwind CSS
Libraries: TensorFlow, Keras, Scikit-learn
Domains: Cybersecurity, Deep Learning, Image Processing, IT Security
Tools: Google Colab, VS Code, Linux

Education

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

Projects

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

- Developed a two-factor authentication system with QR-based OTP and device registration, reducing unauthorized login attempts by 60%.
- Engineered interactive dashboards integrating IP geolocation and user activity logs, improving threat detection efficiency by 40%.
- Replaced traditional SQL with JSON-based storage to enhance scalability and simplify deployment.
- Implemented OTP rate-limiting and device validation to prevent brute-force attacks and unauthorized reuse.

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

- Designed a ResNet-LSTM hybrid model to detect facial inconsistencies in video, achieving 89% detection accuracy.
- Boosted model performance by 15% over baseline CNN through temporal feature integration.
- Preprocessed over 5,000 frames from public datasets to train a robust and efficient classifier.
- Deployed model for batch inference on test videos using multiprocessing, reducing inference time by 30%.

Brain Tumor Classification [GitHub]
TensorFlow, Keras, CNN

- Achieved 92% accuracy in classifying brain tumors from MRI scans using a CNN-based model.
- Applied data augmentation and normalization techniques to enhance model generalization across cases.
- Evaluated on 3,000+ labeled MRI images to support clinical decision-making.

Achievements & Certifications

2nd Place – National Hackathon, Thiagarajar College
Spearheaded the ML pipeline and frontend integration during a national hackathon, contributing to a solution that secured 2nd place among 50+ teams.

ACM Women's Chapter Member 2024 – Present
Contributed to technical workshops, events, and collaborative open-source initiatives.

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