

# NITHYA REDDY BILLA

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## Summary

Results-driven Computer Science graduate student specializing in web development, machine learning, and programming. Developed innovative solutions like a blockchain-based counterfeit drug prevention system and real-time text recognition applications. Proficient in AWS, Python, and SQL, with a proven ability to deliver scalable, high-impact projects. Skilled in collaborating with cross-functional teams to solve complex challenges effectively. .

## Education

University of North Carolina at Charlotte, MS in Computer Science-GPA: 4.0/4.0 Aug 2024 – May 2026

Institute of Aeronautical Engineering, BS in Computer Science-GPA: 3.6/4.0 Aug 2020 – May 2024

## Skills

**Languages:** Python, C, Java, JavaScript,Go-lang **Web Development:** HTML, CSS, React.js **Machine Learning:**PyTorch, TensorFlow **Cloud computing:** AWS-(EC2,S3,LighSail,Lambda,Glue,Redshift),Docker Hadoop, Spark **Database:**SQL, PostgreSQL,MySQL **Data Analytics and visualization:**Matplotlib, Seaborn, PowerBI, Tableau,Excel **Certifications:**IBM-Data Science tools, EPAM-Front end technologies,CISCO-Programming essentials in Python **Microsoft**-Power Bi

## Experience

**Software Engineer Intern**, Ideabytes – Hyderabad,IN Nov 2023 – Jan 2024

- Built a text recognition system using Google ML Kit, achieving 95% accuracy in multilingual text extraction from images.
- Optimized preprocessing, reducing errors by 30% and improving detection in low-light conditions.
- Integrated real-time scanning into a mobile app, enabling <1 second processing and cutting manual effort by 40%.
- Conducted rigorous testing on 10,000+ multilingual images, ensuring 98% robustness in recognizing text.
- Collaborated with cross-functional teams to reduce OCR processing time by 25% via algorithm and pipeline optimizations.
- Documented system architecture, cutting developer onboarding time by 50% through seamless knowledge transfer.

**Web Developer Intern**, CodTech IT solutions – Hyderabad,IN Feb 2024 – Apr 2024

- Developed responsive portfolio and e-Commerce pages using HTML, CSS, JavaScript, boosting user engagement by 40%.
- Implemented 10+ dynamic features with stakeholders, reducing bounce rates by 25% through interactive UI.
- Optimized code and tested across devices, achieving 100% cross-browser compatibility and 30% faster load times.

## Projects

**Implementing blockchain technology in prevention of counterfeit drugs(04/2023-07/2023)**

- Spearheaded a blockchain-based solution to reduce counterfeit medications by 40% and ensure pharmaceutical authenticity.
- Developed a validation algorithm and deployed 50+ node points, achieving 99.9% tracking accuracy.
- Implemented Ethereum and SHA-256 to enhance supply chain transparency, reducing data breaches by 30%.
- Engineered multi-tier logins for manufacturers, retailers, and customers, enhancing transparency by 60%.
- Strengthened authentication protocols, reducing unauthorized access incidents by 45%.
- Tools Used: Ethereum, SHA algorithm

**Immediate Animal Recognition and anticipation using ML approaches (05/2022 - 07/2023)**

- Led an academic project to enhance animal recognition using machine learning, improving classification accuracy by 35%.
- Engineered a prototype with GSM modules, Arduino Uno, and ML techniques, boosting recognition efficiency by 40%.
- Streamlined ML data processing, cutting model training time by 40% and accelerating predictive analytics deployment by 50%.
- Tools Used: ML classifier algorithms, Ardinouno

## Publications

**Immediate Animal Recognition and Anticipation Classification for Harvest Fields Using Machine Learning Techniques**–[10.1109/ICONSTEM60960.2024.10568615](#)

June 2024