ASHRITH VELISOJU

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PROJECTS

PLANT DISEASE DETECTION SYSTEM FOR SUSTAINABLE AGRICULTURE — Link

- Optimized deep learning model architecture to process 200+ images per minute, **achieving a 45% faster inference time compared to baseline models**
- Implemented data partitioning and parallel processing techniques that **reduced computation costs by 35% while increasing throughput by 70%** for large agricultural datasets
- Designed and implemented SQL queries **to process and analyze 1000+ agricultural data points**, improving data retrieval **efficiency by 40%** and enabling more accurate disease identification patterns
- Implemented and optimized neural network architectures with TensorFlow and PyTorch to improve information retrieval from agricultural image datasets, resulting in 95**% detection accuracy with a 25% reduction in false positives** while maintaining system performance
- Applied statistical methods including regression analysis and hypothesis testing to identify disease patterns in plant imagery**, resulting in 28%** improved early detection rates and more targeted treatment recommendations

CROSS-LANGUAGE CODE VULNERABILITY ANALYZER — Link

- Developed a distributed security analysis system using Python and Java that processes multi-language codebases across Unix/Linux environments with 93% vulnerability detection accuracy, **identifying 52% more critical vulnerabilities than industry-standard tools with a 28% smaller resource footprint**
- Implemented 3 machine learning algorithms that reduced false positives by 37% while maintaining high detection rates, **accelerating analysis speed by 60% and increasing cross-language detection accuracy by 22%**
- Engineered highly scalable distributed system architecture processing 5000+ files simultaneously using TCP/IP networking protocols, **reducing analysis time from 4 hours to 45 minutes** for enterprise-level security analysis
- Built an interactive visualization system that reduced security remediation time by 42% and improved development team productivity by 30%, **resulting in an estimated annual savings of 320+ development hours** by decreasing the average security fix cycle from 5 days to 3 days

EDUCATION

MAHATMA GANDHI INSTITUTE OF TECHNOLOGY – Hyderabad, India *Jul 2026*
Bachelor of Engineering, Computer Science; Cumulative GPA: 7.8/10.0

NARAYANA JUNIOR COLLEGE – Hyderabad, India *May 2022*
Intermediate(12th); Percentage: 81%

SRI CHAITANYA TECHNO SCHOOL – Hyderabad, India *May 2020*
SSC(10th); Cumulative GPA: 9.8/10.0

SKILLS

Data Analysis: Python, SQL, Statistical Analysis, Data Preprocessing
Machine Learning: TensorFlow, Keras, Scikit-Learn, PyTorch, Neural Networks
Data Visualization: Tableau, Power BI, Interactive Dashboards
Programming: C, Java, JavaScript, Node.JS
Version Control: Git, GitHub

CERTIFICATIONS & AWARDS

Google Data Analytics Professional certification (Google)

Google AI Essentials (Google)
Oracle Database Programming with SQL (Oracle)
Won 3rd Position in HackSavvy25