Venkat Ratna Reddy Sathu

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Summary

Graduate student in Cybersecurity and Computer Science with a strong foundation in software engineering, object-oriented design, and secure systems development. Skilled in Java, C++, Python, and SQL with hands-on experience designing and deploying cloud-based solutions on Azure. Experienced in building full-stack systems and automating workflows with attention to performance, scalability, and compliance. Passionate about developing reliable software for mission-critical and defense-oriented systems.

EDUCATION

George Washington University — *MS in Cybersecurity in Computer Science*   *Aug 2025 - May 2027 (Expected)*

Osmania University — *Bachelor of Engineering in Computer Science - GPA : 3.0*   *Aug 2019 – May 2023*

EXPERIENCE

Software Engineer I — *ALLCLOUD ENTERPRISE SOLUTIONS* — *Hyderabad, India*   *Oct 2023 – Jul 2025*

- Designed, developed, and integrated C#/.NET Core applications supporting financial transaction automation and security compliance.
- Collaborated with backend and cloud teams to optimize SQL queries, improving data processing speed by 30%.
- Applied encryption and access control using Azure Key Vault and Active Directory to protect sensitive client data.
- Managed version control with Git and Azure DevOps for multi-module deployments, ensuring continuous delivery and traceability.

Software Engineer Intern — *ALLCLOUD ENTERPRISE SOLUTIONS* — *Hyderabad, India*   *Jul 2023 – Sep 2023*

- Supported the development of API endpoints in C# and tested module integration using Postman.
- Assisted in database design and query optimization for customer onboarding and loan verification workflows.
- Documented software requirements, peer-reviewed code, and verified unit test coverage for core modules.

Technical Skills

Languages: Java, C++, C#, Python, JavaScript, SQL
Frameworks: .NET Core, React, REST APIs, HTML/CSS, Node.js
Tools: Git, Azure DevOps, Docker, Postman, Visual Studio, Wireshark
Databases: PostgreSQL, SQL Server
Concepts: Software Development Lifecycle (SDLC), Data Structures, Algorithms, Networking Protocols (TCP/IP, UDP), Secure Software Design, Cloud Computing.

Projects

Abstractive text summarization — mT5 Transformer, Python ↗

- Fine-tuned mT5 on 200+ Telugu children's stories for abstractive summarization.
- Applied beam search sampling, achieving ROUGE-1 F1 score of 0.61 with strong ROUGE-2/ROUGE-L.
- Optimized training with GPUs and dynamic learning rates.

Speech Synthesis in Telugu using Tacotron 2 ↗

- Built a Telugu TTS engine with TensorFlow and Librosa, generating natural speech and reducing English phonetic reliance.
- Adapted deep learning models to low-resource language settings; tools included Spyder, TensorFlow, Librosa, and NumPy.

Network Security Monitoring with Wireshark Suricata ↗

- Configured intrusion detection rules and captured traffic logs.
- Analyzed PCAPs to detect anomalies, brute-force attempts, and port scans.

Certifications

- **CompTIA Security+ (2025)**
- **Google Cybersecurity Professional Certificate.**
- Software Development Certification Course in AWS.

Achievements and Responsibilities

- Led a 4-member team to build a departmental portal using React and Node.js; won 1st place in a 20-team hackathon.
- Served as Department Magazine Coordinator and Class Representative, organizing events and coordinating project showcases.