Email: suraajvarnesheela@gmail.com   **Suraj Sheela**   **Phone Number:** 9402995121

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TECHNICAL SKILLS

Ansible, AWS, Azure, Bash, C/C++, C#, CI/CD (GitHub Actions, Jenkins), Docker, Flask, FUSE, GCP, Git, Golang, GraphQL, Java, JavaScript, Jira, JWT, Kafka, Kotlin, Kubernetes, Linux, MongoDB, OAuth 2.0, Okta, Pandas, PostgreSQL, Postman, Python, Redis, RESTful APIs, SSO/MFA, SAML, Terraform

EDUCATION

Denton, TX   **University of North Texas (UNT)**   **Aug 2021- JUL 2025**
Bachelor of Science (Hons) in **Computer Science, ABET Accredited**   **GPA: 3.80/4.00**
Honors: Magna Cum Laude, Dean's List 2021-24, Eagle Excellence Scholarship ($4000/yr), Undergraduate T.A of the Year (CS)
Organizations: Association of Computing Machinery (ACM), CS Club, Cyber Security Club (CyberC), North Texas Robotics (NT-R)

Coursework: Algorithms, AI & Software Development, Networks, NLP, Cloud Computing, Database Systems, Cybersecurity, Deep Learning

WORK EXPERIENCE

AI Applications Developer Intern | TaskUs | *Dallas, TX*   **VIDEO DEMO** || **SOURCE CODE** || **JUN - AUG 2024**
- Engineered Byte, a secure AI chatbot built with HuggingFace Transformers for semantic parsing, integrated via Flask & SQLAlchemy into a PostgreSQL pipeline with OAuth 2.0, IAM, & multithreading optimizations — reducing API latency by 15% & boosting engagement by 42% across 450+ concurrent queries & added usage analytics with custom performance logging.
- Led the integration of 85,000+ records into an AI-driven lead scoring system in Salesforce using Pandas & scikit-learn, leveraging statistical metrics & supervised learning algorithms to boost lead conversion & forecast accuracy by 9% in a cross-functional team.
- Executed UAT in Salesforce using JIRA with bug tracking, fixing 29 critical issues affecting 2000+ users, & performed A/B testing plus regression analysis on marketing automation platforms (6sense, Seismic) to drive a 28% boost in email open rates in platforms.

Software Systems Engineer | UNT-SYSTEM | *Denton, TX*   **DEC 2021 – JUL 2025**
- Containerized legacy scripts for CI/CD pipelines using Docker, Kubernetes, & IaC; introduced parallel test runners & environment segregation to reduce build time by 29% & post-deploy bugs by 11% across 1500+ machines, enabling faster release cycles.
- Automated provisioning audits for 2000+ hybrid infrastructure devices by orchestrating Ansible playbooks and Terraform API modules, enabling 12+ drift detections that improved configuration compliance by 93% to meet internal SaaS security standards.
- Built an observability dashboard integrating Grafana Loki & Prometheus for 100+ nodes, cutting incident response time by 21%.

Undergraduate Student Teaching Assistant – College of Engineering (Computer Science) | UNT | *Denton, TX*   **FEB 2022- JUL 2025**
- Mentored 500+ students, delivered 200+ lectures, & 50+ online tutoring sessions on core topics including Python, Java, C++, SQL, & algorithms; resolved 200+ code issues, boosting quiz scores by 33%, & achieving a 4.8/5 satisfaction rating.

PROJECTS

Fake News Detection & Summarization with ML & Transformers || **SOURCE CODE** ||
- Architected an abstractive summarization classifier pipeline using BERTSum, integrating Transformers, scikit-learn, NLTK, & Torch; reduced article length by 63% with >82% semantic retention & a 21% gain in key-point recall.
- Used TF-IDF + SVM, Naïve Bayes, & Logistic Regression with custom beam search, max length, & dropout tuning to boost ROUGE-Lsum by 18%, achieved an F1-score of 0.86, and delivered a 6% lift over baseline, validated via confusion matrices.

Generative AI-Powered Recipe Web Application   **VIDEO DEMO** || **SOURCE CODE** ||
- Developed a Generative AI web app with JavaScript, AWS Amplify, & serverless Lambda, leveraging DynamoDB and Redis for real-time data processing, achieving sub-200 ms response times for 450+ concurrent queries; optimized API calls with API Gateway, maintaining a 99.9% success rate while supporting 170+ users & ensuring seamless performance through AWS CloudWatch.
- Decoupled AI inference from API requests via AWS SQS/SNS, reducing API throttling by 12% & bolstering system resilience.

Embedded FAT32 File System Extractor using FUSE, C & Rust || **SOURCE CODE** ||
- Designed a FAT File System Extractor with FUSE in C, parsing 4GB disk images to extract 10,000+ file entries with zero data loss, leveraging asynchronous I/O & optimized thread pools to cut CPU overhead by 21% & boost concurrent file access by 31%.
- Extended functionality with Rust for memory-safe extensions & Python for cutting extraction verification time by 34%, while integrating Kafka & GraphQL for real-time data streaming & querying, reducing corrupted file errors by 52%

RESTful Key Management System with JWKS API || **SOURCE CODE** ||
- Devised a RESTful JWKS server in Python using Flask & PyCryptodome to manage 100+ RSA keys & 200+ JWT requests, implementing OAuth 2.0 scopes, access tokens, & key rotation for secure token distribution, achieving a 9% reduction in latency.
- Crafted a key management system using SQLAlchemy & SQLite for persistent storage of 30+ cryptographic keys, optimizing indexing, eager loading, & connection pooling to improve query throughput by 91% & support secure verification workflows.
- Revamped server architecture to integrate user authentication using OAuth, processing 50+ registrations to streamline access.

Async Network Server & Proxy System || **SOURCE CODE** ||
- Built an asynchronous HTTPS server in Python, using Asyncio & TLS with 15s TTL caching, reducing duplicate requests by 27% & boosting response efficiency by 5%; fine-tuned load-balancing request routing with target selection, reducing overload by 32%

LEADERSHIP

Game Programming | UNT Computer Science Club- RASA Steampunk Adventure FPS 2D   **VIDEO DEMO** || **SOURCE CODE** ||
- Led a 5-member Scrum team using Agile methodologies to design & ship RASA - a 2D Metroidvania-style FPS game in Godot, showcased at UNT Demo Day to 500+ attendees, that delivers immersive gameplay & sophisticated enemy interactions for dynamic combat scenarios while sustaining 60 FPS during fight scenes.
- Used GDScript to integrate A* pathfinding algorithm with hierarchical FSMs to improve NPC path accuracy by 19%.