

Email: [suraajvarnesheela@gmail.com](mailto:suraajvarnesheela@gmail.com)

**Suraj Sheela**

Phone Number: 9402995121

LinkedIn: [surajsheela](#)

Portfolio: [Suraj Sheela](#)

Github: [SuraajVarne](#)

## TECHNICAL SKILLS

Ansible, Apex, AWS, Azure, Bash, C/C++, CI/CD (Jenkins, GitHub Actions), Docker, Flask, Git, GoLang, GCP, GraphQL, HuggingFace, Java, JavaScript, Jira, JWT, Kotlin, Kubernetes, Linux, MongoDB, NLTK, OAuth 2.0, Pandas, PostgreSQL, Python, Redis, RESTful APIs, Terraform

## EDUCATION

**Denton, TX**

**University of North Texas (UNT)**

**Aug 2021- May 2025**

**Bachelor of Science (Hons) in Computer Science, ABET ACCREDITED**

**GPA: 3.80/4.00**

**Honors: Magna Cum Laude, Dean's List 2021-25, 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, 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, an AI chatbot built with Python & HuggingFace Transformers for semantic parsing, integrated via Flask & SQLAlchemy with a PostgreSQL pipeline, optimizing interface through quantization & multi-threading to manual data entry by 24%, lower API latency by 15%, & increasing user engagement by 42% across 350-concurrent queries.
- 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%.
- Executed UAT in Salesforce 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 28.67% boost in email open rates in platforms.

**Software Engineering Support Specialist (IT) | UNT-SYSTEM | Denton, TX**

**JUN 2022 - PRESENT**

- Streamlined the Jenkins CI/CD pipelines with Docker & Kubernetes, deploying 200+ machine configurations with IaC, cutting build time by 35.3% & improving stability by 23% through parallelization & containerization, boosting system efficiency.
- Automated deployment of 1000+ laptops with PXE & custom shell scripts, managed 50+ weekly ServiceNow tickets & provided support to over 300+ UNT-SYSTEM employees, resulting in a 8.7% reduction in downtime & increasing the MTTR by 18%.
- Implemented proactive system monitoring with Prometheus & Grafana, resulting in a 4.3% improvement in throughput.

**Undergraduate Teaching Assistant - Computer Science | UNT | Denton, TX**

**FEB 2022- PRESENT**

- 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 classification summarization 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, & Logistical Regression with custom beam search, max length, & dropout turning to boost ROUGE-Lsum by 18.2%, achieve an F1-score of 0.86, and deliver a 24% 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, & Lambda, leveraging DynamoDB and Redis for real-time data processing, achieving sub-200 ms response times for 350+ 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.

**FAT File System Extractor & FUSE Integration**

|| [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 12%, 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 & process 200+ concurrent requests for public keys & JWTs, achieving a 18.5% reduction in retrieval latency by asynchronous processing.
- Crafted a key management system SQLAlchemy with SQLite for persistent storage of 30 RSA Keys, optimizing ORM queries, indexing, & connection pooling to achieve 91% query efficiency & strengthen JWT security.
- 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 Scrum of 4 developers to design RASA- a 2D Metroidvania-style FPS game in GoDot 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 F.S.Ms to improve NPC path accuracy by 16%.