

# MANIT DANKHARA

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## Profile

Computer Science student at the University of Texas at Arlington with hands-on experience building secure, testable backend systems, data pipelines, and mobile applications. Skilled in Python, Java, C++, REST APIs, SQL, and modern frameworks. Experienced with automation, modular system design, and collaborative development. Seeking a Back-End Software Engineering Internship to build scalable, reliable, and secure distributed systems.

## Education

### University of Texas at Arlington

B.S., Computer Science

2026

## Experience

### University of Texas at Arlington

Resident Assistant

2025 - Present

University Housing

- Mentored and supported a community of 30+ residents by planning programs, mediating conflicts, and ensuring policy compliance to enhance community living standards and safety, applying software development principles to structure and optimize engagement activities
- Coordinated with housing staff and campus resources in a collaborative team environment, employing agile-inspired documentation practices and performance optimization to maintain accurate, on-time incident reports

## Projects

### AI Stock Analysis & Portfolio Builder

Jul 2025

- Built a research tool that ingests real-time and historical market data via a market data API, cleans it, and computes features (returns, rolling stats, momentum signals).
- Implemented a config-driven backtesting engine to compare multiple strategies on multi-year OHLCV data with risk metrics (Sharpe, max drawdown, volatility).
- Automated the pipeline (ingest → feature gen → backtest → report) and produced PDF summaries/plots for faster decision-making.
- Structured the codebase with modular components (data, indicators, strategies, reporting) and robust error handling/logging.

### Image-to-Text Converter (OCR Mobile App)

Mar 2025

- Built an offline mobile app that converts photos of receipts/notes into selectable, shareable text-no network required.
- Improved recognition by adding preprocessing (grayscale, denoising, thresholding) and perspective correction for skewed images.
- Designed a two-tap export flow (TXT/PDF/share sheet) and packaged the OCR pipeline as a reusable Flutter widget with unit tests for preprocessing steps.

### Fusion AI Multi-Source Intelligent Assistant using LLaMA and RAG

Jan 2026

- Built an AI-powered intelligent assistant using the LLaMA 3.3-70B model with a Retrieval-Augmented Generation (RAG) pipeline to fetch and synthesize responses from weather APIs and structured databases, improving contextual relevance by ~25%.
- Developed a user-facing web application using Flask, HTML, and CSS, enabling real-time natural language interactions with multi-source data.
- Containerized the application using Docker to support consistent environments, scalable deployment, and streamlined development workflows using Python, NLP techniques, and REST integrations.

## Technical Skills

- **Languages:** Python, C, C++, Java, Dart, JavaScript, SQL, Swift
- **Frameworks/Libraries:** Flask, FastAPI, React, Flutter, Pandas, NumPy, scikit-learn, OpenCV, TensorFlow, Postman, Security Testing
- **Databases/Cloud:** MySQL, SQL Server, SQLite, REST APIs, Git/GitHub, Kubernetes, RESTful services, Azure
- **Tools:** VS Code, Jupyter, Postman, Unix/Linux, Docker
- **Professional Skills:** Software Development, Performance Optimization, Secure coding practices, Debugging

## Activities & Leadership

### University of Texas at Arlington

Member, UT Arlington Computer Science Club; Volunteer Tutor; Sports

Aug 2023 - May 2024

- Member, UT Arlington Computer Science Club
- Volunteer Tutor: Python & C++
- Sports: Basketball & Swimming