

Tanzeel Rahman

718-502-7168 | tanzeelr.netlify.app | tanz.riyan@gmail.com | github.com/zinels | linkedin.com/in/tanzinels | Tampa, FL

EDUCATION

Bachelor's Degree in Computer Science with Honors	University of South Florida	May 2027 GPA: 3.75/4
Coursework: Data Structures & Algorithms, Software Engineering, Systems Programming, Database Systems, AI		

TECHNICAL SKILLS

- Programming Languages:** C/C++, C#, Python, Java, JavaScript (ES6+), SQL, HTML, CSS
- Frameworks & Libraries:** React.js, Node.js, Express.js, FastAPI
- Databases & DevOps:** PostgreSQL, Oracle SQL, Docker, Git, GitHub Actions, AWS
- Software Engineering:** REST APIs, Microservices, CI/CD, Unit Testing, Debugging, Agile/Scrum

PROFESSIONAL EXPERIENCE

Software Engineer Intern (Applied ML Systems)	Moffitt Cancer Center	May 2025- Dec 2025
Technologies: Python, Pandas, NumPy, Scikit-learn, Git, Jupyter, Matplotlib		
<ul style="list-style-type: none">Engineered modular data processing pipelines in Python (Pandas, NumPy) to support large-scale genomic workflows, improving reliability and maintainability across downstream systemsBuilt reusable preprocessing and validation utilities for 10,000+ records, enforcing schema consistency and reducing integration failures across pipeline stagesAutomated end-to-end pipeline execution with logging, checkpointing, and error handling, enabling reproducible run cyclesOptimized batch processing using profiling and vectorized operations, eliminating bottlenecks and improving execution speed		
Software Engineer (Research Applications)	University of South Florida	Jan 2025 – Present
Technologies: Unity, C#, Android SDK, GPS Sensor APIs, OpenStreetMap API, Git		
<ul style="list-style-type: none">Developed and shipped production-ready features for a Unity-based Android application used in real-world driving studiesEngineered robust GPS, API, and state-management logic in C#, resolving edge cases identified across 20+ lab and road cyclesImproved application reliability and iteration speed through modular service design, async operations, and error handling		
Software Developer Intern	TCL – Telecommunications Ltd.	May 2024 – Aug 2024
Technologies: React.js, Node.js, Express.js, PostgreSQL, SQL, Docker, Git, GitHub Actions, Vercel		
<ul style="list-style-type: none">Built and maintained Node.js and Express.js backend services supporting internal analytics dashboards for 500+ employeesDesigned and implemented REST API endpoints and PostgreSQL schemas for reliable data ingestion and real-time monitoringContainerized services with Docker and implemented CI/CD pipelines using GitHub Actions to improve deployment speedOptimized SQL queries and refactored service logic, reducing endpoint latency and improving overall system responsiveness		

PROJECTS

ResearchLink Next.js (TypeScript), Tailwind CSS, FastAPI, SQLAlchemy, SQLite, BeautifulSoup, Unicorn
<ul style="list-style-type: none">Developed a full-stack platform aggregating 40+ faculty research opportunities into a searchable, student-facing interfaceBuilt FastAPI backend services with SQLAlchemy models to support structured data ingestion, filtering, and web scrapingImplemented dynamic frontend features (search, filters, tags, profiles) using Next.js with server-side renderingOptimized backend queries and schema design, achieving sub-200ms API response times under typical usage
Driving Behavior Research App Unity (C#), GPS APIs, Overpass API, Android SDK, JSON, Git
<ul style="list-style-type: none">Architected a Unity-based Android application computing real-time vehicle speed from GPS data and retrieving posted road-speed limits via Overpass APIImplemented modular services for GPS polling, speed calculation, API parsing, and violation logic using OOP patternsBuilt a data-logging subsystem to record speed, GPS accuracy, and speed-limit mismatches for downstream behavioral analysisEngineered logic to mute/unmute Android system volume (via AudioManager plugin) when users exceeded posted speed limits
ScholarScan Python, arXiv API, Scikit-learn, Transformers, OpenAI API, SQLite, Pandas
<ul style="list-style-type: none">Developed an automation tool ingesting 1,000+ research papers via the arXiv API using modular preprocessing pipelinesBuilt structured data workflows with SQLite-backed caching to improve fetch stability and reduce repeated request timeImplemented a hybrid summarization engine combining TF-IDF, embeddings, and GPT-based inference for topic extractionCreated clean abstraction layers for preprocessing, inference, and summarization to support maintainability and expansion

LEADERSHIP EXPERIENCE

Resident Assistant	University of South Florida	Aug 2024 – Present
<ul style="list-style-type: none">Supported a residential community of 50+ students by resolving conflicts, coordinating resources, and addressing issuesBalanced leadership responsibilities alongside a full academic and technical workload, maintaining strong academic standing		