

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		
• Engineered modular data processing pipelines in Python (Pandas, NumPy) to support large-scale genomic workflows, improving reliability and maintainability across downstream systems		
• Built reusable preprocessing and validation utilities for 10,000+ records, enforcing schema consistency and reducing integration failures across pipeline stages		
• Automated end-to-end pipeline execution with logging, checkpointing, and error handling, enabling reproducible run cycles		
• Optimized 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		
• Developed and shipped production-ready features for a Unity-based Android application used in real-world driving studies		
• Engineered robust GPS, API, and state-management logic in C#, resolving edge cases identified across 20+ lab and road cycles		
• Improved 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		
• Built and maintained Node.js and Express.js backend services supporting internal analytics dashboards for 500+ employees		
• Designed and implemented REST API endpoints and PostgreSQL schemas for reliable data ingestion and real-time monitoring		
• Containerized services with Docker and implemented CI/CD pipelines using GitHub Actions to improve deployment speed		
• Optimized 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	
• Developed a full-stack platform aggregating 40+ faculty research opportunities into a searchable, student-facing interface	
• Built FastAPI backend services with SQLAlchemy models to support structured data ingestion, filtering, and web scraping	
• Implemented dynamic frontend features (search, filters, tags, profiles) using Next.js with server-side rendering	
• Optimized 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	
• Architected a Unity-based Android application computing real-time vehicle speed from GPS data and retrieving posted road-speed limits via Overpass API	
• Implemented modular services for GPS polling, speed calculation, API parsing, and violation logic using OOP patterns	
• Built a data-logging subsystem to record speed, GPS accuracy, and speed-limit mismatches for downstream behavioral analysis	
• Engineered 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	
• Developed an automation tool ingesting 1,000+ research papers via the arXiv API using modular preprocessing pipelines	
• Built structured data workflows with SQLite-backed caching to improve fetch stability and reduce repeated request time	
• Implemented a hybrid summarization engine combining TF-IDF, embeddings, and GPT-based inference for topic extraction	
• Created clean abstraction layers for preprocessing, inference, and summarization to support maintainability and expansion	

LEADERSHIP EXPERIENCE

Resident Assistant	University of South Florida	Aug 2024 – Present
• Supported a residential community of 50+ students by resolving conflicts, coordinating resources, and addressing issues		
• Balanced leadership responsibilities alongside a full academic and technical workload, maintaining strong academic standing		