

FARHAN SANUKRI

910-444-9421 | farsan@unc.edu | [linkedin.com/in/farhan-sanukri/](https://www.linkedin.com/in/farhan-sanukri/) | github.com/sanufar | U.S Citizen

Education

University of North Carolina at Chapel Hill

Bachelor of Science in Computer Science, Bachelor of Arts in Mathematics

Expected May 2027

Chapel Hill, North Carolina

Relevant Coursework: Data Structures and Algorithms, Discrete Mathematics, Foundations of Programming, Computer Organization, Models of Languages and Computation, Systems Fundamentals, Operating Systems, Computer Networks

Experience

Fidelity Investments

Incoming Software Engineer Intern

May 2025 – Aug. 2025

Durham, NC

- Incoming software engineering intern.

App Team Carolina

Software Engineer

January 2023 – Present

Chapel Hill, NC

- Developed 10+ fully functional iOS applications using SwiftUI and UIKit, implementing best practices for iOS app development and MVVM architecture patterns.
- Facilitated maintenance and developed new features for PORCH, an iOS client app for PORCH Communities, streamlining tracking of 1M+ food pounds (\$440K in fresh food) across 13 states and 242 partners.
- Integrated Twilio Text and SendGrid Email APIs with a JavaScript Firebase backend to power food pantry notification system, achieving 100% delivery rate and handling 2,000+ monthly donation/pickup alerts.
- Achieved 95% test coverage by implementing XCUITests across 15 critical user journeys, reducing post-release bugs by 60%.

Duke University, Department of Orthopaedic Surgery

Research Assistant

August 2022 – June 2023

Durham, NC

- Reduced manual labor by 85% with CNN-based ResNet50 architecture for meniscus tear grading, saving 25+ weekly hours and tripling processing capacity.
- Built parallel PyTorch/OpenCV pipeline using Apache Spark, accelerating classification from 8 minutes to 30 seconds

Projects

Transit Map ETA Analysis | Python, Kafka, Flink, PyTorch

- Developed deep learning model to predict public transit arrival times with 94% accuracy, improving upon heuristic-based BFS by 23% reduction in prediction error
- Implemented real-time data processing pipeline using Kafka and Flink, handling 5K+ events/second with sub-second latency

Social Media Platform | GraphQL, Go, React, RabbitMQ, MongoDB

- Architected microservice-based social network drawing from a GraphQL API for efficient data fetching
- Built notification system using message queue architecture, achieving 99.9% delivery rate and 200ms average delivery time

Distributed Key-Value Database | Rust, Raft Consensus

- Implemented distributed key-value store in Rust with custom encoding format, achieving 20K+ operations/second
- Integrated Raft consensus algorithm for data replication across nodes, maintaining system availability with 3-node failures

Bluesky Data Ingestion Pipeline | Python, Elasticsearch, HuggingFace

- Designed high-throughput vector embedding pipeline for social media content, processing 10K+ posts/minute
- Integrated LLM-based content analysis for semantic search and recommendation, using pgvector and inverted index for scalable RAG integration

Technical Skills

Languages: Python, Java, C, JavaScript, TypeScript, Go, Swift, HTML/CSS, SQL

Developer Tools: Git, GitHub, AWS, Figma, Vim, VS Code, XCode, IntelliJ IDEA

Technologies/Frameworks: React, Docker, Node.js, JUnit, PyTorch, Pandas, Flask, NumPy, SwiftUI, Firebase