

Tahsin R. Chowdhury

817-371-3130 | tahsin.chowdhury@mavs.uta.edu | linkedin.com/in/trcpoet | github.com/trcpoet | Portfolio | Arlington, TX | Green Card

EDUCATION

The University of Texas at Arlington

Arlington, TX

Bachelor of Science in Information Systems, STEM-Designated, AACSB-Accredited

Aug. 2019 – May 2024

Coursework: Full-Stack Development, Database Systems & BI, Data Structures & Algorithms, Software Engineering SDLC, Business Statistics, Cloud Computing, Information Security | **Awards:** Maverick Scholarship, Honor Roll, Dean's List

TECHNICAL SKILLS

Languages: JavaScript ES6+, TypeScript, Python, Java, SQL, C, C++, C#, R, Solidity, HTML5, CSS3

Frontend: React 19, Next.js 15/16, React Native, Redux, Zustand, Tailwind CSS, shadcn/ui, GSAP, WCAG 2.0

Backend: Node.js, Express, Python FastAPI, Flask, Java Spring Boot, REST APIs, microservices, MERN, PERN, OAuth 2.0, JWT, RBAC, systems design & architecture

AI & ML: OpenAI API, Claude API, Gemini, LangChain, LangGraph, RAG pipelines, prompt engineering, TensorFlow/Keras, scikit-learn, pandas, NumPy

Data: PostgreSQL (CTEs, window functions, stored procedures, RLS), MySQL, MongoDB, Firebase, Supabase, Power BI (DAX, Power Query), Tableau, ETL, Excel, Streamlit

Cloud & DevOps: AWS (Lambda, API Gateway, S3, CloudFront, IAM), Docker, Kubernetes, Linux, CI/CD (GitHub Actions, Vercel), Git, Jest, RTL, JUnit, Zod, Salesforce CRM, SAP ERP, Figma, Agile/Scrum

EXPERIENCE

FUN — Founder & Full Stack Developer

Arlington, TX | Jan. 2024 – Present

- Shipped 6 production full-stack applications (React 19, Next.js 15, TypeScript, Node.js, PostgreSQL, AWS) with OAuth 2.0, JWT, RLS, RBAC, Jest/RTL TDD, and Vercel CI/CD across every build — including FUN ([Live Demo](#) | [GitHub](#)), a real-time sports social platform on a Mapbox GL map UI: geo venue discovery, atomic PostgreSQL RPC booking, Supabase Realtime messaging; offloaded clustering of 300+ concurrent data points to a Web Worker via Chrome DevTools, eliminating frame drops.
- Engineered backend REST APIs in Java (Spring Boot 3, Spring Data JPA) and Python (FastAPI, Flask) with layered entity–repository–service–controller architecture over PostgreSQL, containerized with Docker for AWS; delivered generative AI applications — a LangGraph stateful multi-actor agent, a RAG document-analysis pipeline (OpenAI API, Streamlit), OpenAI function-calling integrations, and a TensorFlow/Keras image classifier with OpenCV preprocessing.

University of Texas at Arlington

Arlington, TX

Research Assistant, Software Engineering

Apr. 2021 – May 2024

- Led 4 Figma-to-code full-stack builds in Agile/Scrum teams (JavaScript/TypeScript, React, Node.js, Next.js, Java, Python, C, C++, C#) — architected a serverless AWS backend (Lambda, API Gateway, DynamoDB, RDS, S3, CloudFront, IAM) and integrated 6+ RESTful APIs with async state management, error boundaries, and retry logic.
- Developed Java applications end to end — a bank management system (auto-generated 16-digit cards and PINs, full ATM lifecycle, MySQL/JDBC, JUnit), a university management system, and a real-time chat application — plus an e-commerce website, applying OOP design patterns throughout.
- Trained and evaluated machine learning and deep learning models in Python (TensorFlow/Keras, scikit-learn) and built end-to-end data-science workflows with pandas and NumPy.

Research Assistant, Data Analysis

Aug. 2019 – Apr. 2021

- Designed and queried a normalized SQL database of 1,000+ employee records (joins, aggregations, stored procedures) to track payroll accuracy and headcount — replaced manual Excel workflows, cutting reporting time by 30%.
- Built Tableau and Power BI dashboards for weekly payroll and turnover reviews; wrote Python and R data-cleaning and ETL scripts over raw HR data, applying statistics, machine learning, and data-engineering fundamentals.

PROJECTS

AI SaaS Suite — Generative AI Applications | [GitHub](#) | *OpenAI API, Claude API, Gemini, LangChain, LangGraph, RAG*

- HITL interview-prep tool, AI notebook, and portfolio Q&A agent — LangGraph multi-agent workflows, vector-search RAG, streaming responses, and prompt engineering across OpenAI, Claude, and Gemini.

Skinstric AI | [Live Demo](#) | [GitHub](#) | *React 19, Next.js, TypeScript, Python FastAPI, GSAP*

- Pixel-accurate Figma-to-code UI for an ML skin-analysis microservice — multi-step async REST handling, confidence-score parsing, 50+ GSAP animation sequences, WCAG 2.0 compliant.

Nike E-Commerce | [Live Demo](#) | [GitHub](#) | *Next.js 15, PostgreSQL, Drizzle ORM, Stripe, Zod, Zustand*

- SSR/CSR rendering boundaries, Stripe REST API billing, JWT-secured OAuth 2.0, Zod validation on all API payloads, and Vercel CI/CD.

Retail & Library SQL Analysis | [GitHub](#) | *PostgreSQL, CTEs, window functions, stored procedures, CTAS*

- Retail analysis across 1,000+ transactions (RANK/LAG/PARTITION BY, MoM trends, profit margins) and a 6-table library system with checkout/return stored procedures and overdue segmentation.

Data Professional Survey Dashboard | [GitHub](#) | *Power BI, DAX, Power Query, star schema, ETL*

- Power Query ETL (salary parsing, null handling) over a 630-respondent global survey — star-schema model with DAX measures and executive treemap, gauge, and donut visuals.

CERTIFICATIONS

Meta Full Stack Developer | Harvard CS50 | Frontend Simplified | Web Development Bootcamp & 100 Days of Code: Python (Angela Yu) | Java (28 Minute School) | **In Progress:** AWS Cloud & Solutions Architect; Data Science 365