

# Fuzail Sami

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## EDUCATION

### The University of Texas at Dallas

B.S. in Computer Engineering

Richardson, Texas

Expected Graduation, May 2027

- Related Coursework: Object-Oriented Programming, Data Structures and Algorithms, Software Engineering, Digital Circuits

## TECHNICAL SKILLS

**Programming Languages:** Java, Python, C/C++, JavaScript, HTML/CSS, MongoDB, PostgreSQL, MATLAB

**Hardware Tools:** PSpice, Arduino

**Frameworks:** React, Node.js, Express.js, Spring Boot

**Developer Tools:** Git, Docker, VS Code, Visual Studio, IntelliJ

**Libraries:** pandas, NumPy, scikit-learn

## PROJECTS

### Smart Distance Indicator | Arduino, C/C++

May 2024

- Created an Arduino alert system that measured distance with an ultrasonic sensor and changed RGB LED colors based on proximity, improving real-time visual warnings.
- Programmed RGB LEDs to display green, orange, and red at specific distance thresholds, providing clear, intuitive alerts to users.
- Integrated a buzzer to sound alerts when proximity crossed critical limits, enhancing safety through multi-sensory warnings.

### Joystick-Controlled Binary Counter | Arduino, C/C++

February 2025

- Built a 4-bit and two-digit counter on ESP32 that outputs binary values for improved hardware accuracy.
- Used bitwise operations to convert joystick input into binary-coded decimal outputs, enabling real-time user control.
- Added serial communication for real-time debugging, reducing errors and speeding up validation.

### Subscription Tracker API | Node.js, Express.js, React, MongoDB

June 2025

- Delivered a full-stack subscription platform for 1,000+ users by implementing authentication and automated renewal reminders with Upstash Workflow and Nodemailer, reducing missed payments by 30%.
- Enhanced security and performance by integrating Arcjet middleware for rate limiting, bot detection, JWT authentication, and bcryptjs hashing.
- Increased efficiency with a scalable MongoDB database featuring validation and multi-currency support.

### Plant Nursery App | React, Vite, Redux Toolkit, HTML/CSS

June 2025

- Developed a full-stack plant shopping app with React, Redux Toolkit, and Vite, showcasing 30+ plants across 6 categories to enhance product discovery and browsing.
- Implemented dynamic cart functionality with Redux Toolkit supporting add/remove, quantity updates, and real-time totals to improve shopping continuity and UX.
- Designed a responsive, branded UI with quantity controls and smooth navigation, increasing user engagement and reducing cart abandonment.