DEVEN PATEL

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OBJECTIVE

Computer Science major graduating May 2026 seeking full-time Software Development, Firmware Engineer, or Embedded Systems Engineer roles. Experienced in full-stack development with React, JavaScript, Python, modern web technologies, and embedded systems programming.

EDUCATION

University of Illinois Chicago (UIC) **Chicago, IL**
Bachelor of Science in Computer Science; GPA: 3.65 *Aug 2022 – May 2026*

PASSION PROJECT

Intra-Oral Wearable Respirometer *React, C/C++ (Arduino), BLE*
- Developed React-based web UI for real-time data visualization and interaction with intra-oral wearable device measuring physiological parameters including respiration, PPG, SpO2, pressure, and stress indicators
- Designed firmware in C/C++ (Arduino) for XIAO nRF52840 Sense microcontroller, implementing BLE communication protocols for streaming sensor data from biometric hub (MAX32664), pressure sensor (MS5803), and FSR force detection
- Architected data-handling pipeline for BLE packet management, MTU negotiation, and synchronization between hardware sensors and web-based UI; integrated IMU for motion artifact cancellation
- Implemented haptic feedback system and LED diagnostics; collaborated with hardware team to optimize single-chip design and ensure firmware-UI synchronization for time-sensitive research deadline

EXPERIENCE

Computer Specialist | *UIC Technology Solutions* **Sep 2023 – Present**
- Provide Tier 2 endpoint support for Windows and macOS, troubleshooting OS, hardware, drivers, printers, VPN/Wi-Fi, and network connectivity; resolve high-volume tickets via ITSM with strong SLAs
- Perform PC lifecycle operations including imaging/re-imaging, OS upgrades, software deployment, and device configuration; ensure standard builds and baseline security compliance

Research Aide Volunteer | *WTSE Lab, UIC* **Aug 2025 – Present**
- Contribute to intra-oral wearable platform through end-to-end prototyping, system integration, and proof-of-concept demos for sensing and human-computer interaction applications
- Support embedded firmware iteration and build reliable BLE/serial data pipelines for streaming, logging, and experiment-grade data capture

Teaching Assistant | *CS 479, UIC* **Fall 2025 & Spring 2026**
- Mentored student teams building wearable/IoT prototypes; debugged microcontroller setup, wiring, sensor bring-up, and embedded/software integration across multiple projects
- Guided real-time data acquisition and UI workflows using Arduino + Processing (serial/BLE), including signal visualization, event-driven interactions, and rapid iteration on demo-ready interfaces

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, C/C++, Go, F#, HTML/CSS
Frontend: React, HTML/CSS, JavaScript, Responsive Design
Backend: Node.js, Express, Flask, Django, REST APIs
Databases: PostgreSQL, MySQL, MongoDB
Tools & Technologies: Git, Docker, AWS, Azure, Postman, BLE Protocols
Embedded Systems: Arduino (C/C++), XIAO nRF52840, Sensor Integration, Firmware Development

SOFT SKILLS

Problem Solving · Technical Communication · Team Collaboration · Mentorship · Time Management · Adaptability · Customer Service · Documentation

ACADEMIC PROJECTS

AgriMitra – SparkHacks 2025 Winner *Python, Flask, React, MongoDB, OpenAI API*
- Built full-stack agricultural recommendation platform with React UI and Flask REST APIs; integrated OpenAI API for intelligent crop recommendations and farming insights based on weather data and soil conditions
- Designed MongoDB schemas and indexes to support scalable CRUD operations, filtering, and real-time dashboard queries for agricultural data management

Aahar *MongoDB, Express, React, Node.js*
- Developed MERN stack food donation platform with responsive React UI and Node/Express backend; implemented authentication, role-based access control (RBAC), and secure CRUD workflows for managing posts and donations
- Optimized user experience with real-time UI updates and efficient API/database integration through validated queries and content moderation flows