Brandon Premachandra

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Objective Statement

Motivated Computer Science student specializing in AI, Robotics, and Gaming, seeking an internship or entry-level opportunity to apply technical skills in programming, web development, and problem-solving while gaining hands-on industry experience.

Education

University of North Carolina at Charlotte | Charlotte, NC
Computer Science | Concentration: AI, Robotics, and Gaming
Graduation Date: May 2027

- Relevant Coursework:
    - Intro to CompSci I
    - Intro to CompSci II
    - Computing Professionals II
    - Computers and Their Impact on Society
    - Data Structures and Algorithms
    - Database Design and Implementation
    - Intro to Computer Systems'
    - Front-End Web Application Development
    - Intro to AI

Skills

- **Web development:** HTML, CSS, JS
- **Languages:** Python, C, Java, SQL
- **Hardware/Embedded:** Arduino (basic circuits, sensors, and motor control)
- **Interpersonal:** Teamwork, Communication, Problem-Solving, Adaptability

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Experience

Car Detailer | Carolina Rent-A-Car, Charlotte NC

- April 2025 - Current
- Maintained efficiency under time constraints, ensuring customer satisfaction
- Strengthened organizational skills while managing multiple tasks
- Developed adaptability and problem-solving skills in fast-paced environments

Senior Lube Technician | Valvoline, Charlotte NC

- October 2024 – April 2025
- Provided professional customer service, explaining services clearly to clients
- Followed SuperPro company policy and safety standards with attention to detail
- Hands-on experience servicing cars

Projects

Music Downloader (Personal Project) Fall 2025

- Designed and implemented a Python-based application to download audio from YouTube and SoundCloud, convert files to MP3, and embed user-provided metadata and album art
- Utilized multiple libraries such as yt-dlp, pydub, and mutagen, along with ffmpeg for audio processing, and packaged the project into a standalone executable with PyInstaller for easy distribution

Arduino Ultrasonic Distance Alert System (Personal Project) Summer 2025

- Built a sensor system with Arduino to detect objects within 150 cm
- Programmed the Arduino to trigger a buzzer and LED when an object was found in a certain range
- Assembled and wired components, including an ultrasonic sensor, an LED, a buzzer, and a breadboard

AI-Powered IoT Occupancy Sensor (Personal Project) Fall 2025

- Built a wireless sensor node using Arduino UNO R4 to stream environmental data via MQTT
- Programmed a Raspberry Pi to act as a central broker, data logger, and AI processing unit
- Trained and deployed a Random Forest machine learning model in Python to predict room occupancy in real-time