# **SAHIL MODI**

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## **EDUCATION**

### University of Illinois at Urbana-Champaign

Undeclared: Pre-Engineering (Computer Science)

**GPA** | 4.00/4.00

May 2021 | Sophomore Standing

Taking CS: Data Structures

James Scholar Honors

### **Bartlett High School**

Magnet STEM Academy **GPA** | 4.57/4.00, 3.71/4.00

Top 5% in class

#### PROFESSIONAL EXPERIENCE

## Knowles Electronics (Itasca, IL)

Intern, June 2016

- Built and configured a Linux cluster
- Tested microcontrollers with an oscilloscope
- Found IC chips to test microphones

#### **SKILLS**

Proficient | Android Development + Java

**Proficient** | Computer-Aided Design (Autodesk Inventor)

Proficient | C++

Intermediate | Python, HTML, CSS, JavaScript

Intermediate | Autonomous Control Systems

## **PROJECT HIGHLIGHTS**

# Capstone CS Project: FaceTunes | Lead Developer

An app that plays a song based on current mood

- Machine learning detects emotions in an image
- Strongest emotion picked to play a song
- Spotify integration with specific mood playlists

# Capstone Project: Bluetooth Light Switch | Team Lead

An Internet of Things solution to wireless lighting

- Facilitated communication and delegated tasks
- Installable without removal of the current fixture
- Arduino, Bluetooth 2.0, and 9g servo motor

# **LEADERSHIP AND ACTIVITIES**

# Engineering Freshmen Council (2017 - Present)

IT Chair, 2017 - Present

• Creating and maintaining a website

## iRobotics Midwestern Robotics Design Competition (2017 - Present)

Subsystem Lead, Software Team, 2017 - Present

- Designing a robot from scratch to compete against regional universities
- Developing code to control various subsystems of the robot

# ACM Illinois Programming League (2017 – Present)

Freshman Division, 2017 - Present

Develop various algorithms to complete a problem set

**Vex Robotics** (2014 – 2017)

**Lead Programmer**, 2015 – 2017 | **State Finalist** 2015, 2016 | 3<sup>rd</sup> at Regionals 2017

- Programmed best-in-state autonomous mode that scored 35% of the team's total score in 15 seconds
- Conducted research on Proportional Integral Derivative (PID) and PTC speed control systems

St. Alexius Medical Center (Hoffman Estates, IL) | Volunteer, March – August 2017 (60+ hours)

Delivered medication from the pharmacy







