

# SAHIL MODI

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## EDUCATION

### University of Illinois at Urbana-Champaign

Undeclared: Pre-Engineering (**Computer Science**)

CS 225 (Data Structures) | James Scholar Honors

May 2021

GPA | 4.00/4.00

## PROFESSIONAL EXPERIENCE

### Distributed Autonomous Systems Laboratory, Undergraduate Research Assistant

Jan 2018 – Present

Urbana, IL

- Conducting research on autonomous algorithms and decision making for navigation
- Developing tests that simulate real-time performance in the field
- Collaborating on a fully-autonomous robotic solution to phenotype a plot of crops

### Knowles Electronics, Software Engineering Intern

June 2016

Itasca, IL

- Fully built and configured a Linux cluster to be used as a database
- Tested microcontrollers against rated specifications with an oscilloscope
- Researched IC chips to be implemented in microphone testing PCBs

## 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
- Used an Arduino, Bluetooth 2.0, and 9g servo motor

## LEADERSHIP AND ACTIVITIES

### iRobotics MRDC | 2017 – Present

#### Subsystem Lead, Software Team

- Designed and built the robot's intake system
- Developed code to control various subsystems

### Engineering Freshmen Council | 2017 – Present

#### IT Chair, 2017 – Present

- Redesigned the EFC main website
- Created and managed individual committee pages

### ACM SIGBot | 2017 – Present

#### Software Team

- Used Robot Operating System to recognize objects

### Vex Robotics | 2014 – 2017

#### Lead Programmer, 2015 – 2017 | State Finalist 2015, 2016

- Programmed 15 second fully-autonomous mode
- Researched Proportional Integral Derivative control

### St. Alexius Medical Center | 2017

#### Volunteer, March – August 2017

- 80+ service hours
- Delivered medication from the pharmacy

## SKILLS

Proficient | C++, Java, Android Development

Intermediate | Python, CAD (Autodesk)



Play Store: smApps



github.com/sahilmodi



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sahilmodi.me