

Sachin Patel

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Education

Iowa State University, College of Engineering

- Bachelor of Science in Computer Engineering Expected May 2024
- Relevant Coursework: OOP, Data Structures, Algorithms, Embedded Systems GPA: 4.0/4.0

Technical Skills

Languages

Java Python C C#
C++ JavaScript VBA Verilog

Tools

Django Flask
React.js Spring Boot

Hardware

Arduino Arm
Raspberry Pi FPGA

Professional Experience

Vermeer Corporation

May 2022 – Present

Embedded Software Engineering Intern

Pella, IA

- Developed macros in **VBA** to assist electrical engineers with designing schematics in Zuken.
- Prevented the possibility of a faulty circuit being produced by creating a macro to analyze a schematic's circuit and check for any potential hazards.
- Iterated on user feedback to improve a macro that streamlines the process of placing wires in a Zuken schematic.

Expaaand Contract Services

Jul 2021 – Aug 2021

Front End Design Intern

Remote

- Produced a landing page prototype in **JavaScript** and **HTML/CSS** that secured a client.
- Designed detailed UIs for landing pages and widgets with Figma that pleased clients and investors.

ISU Department of Electrical and Computer Engineering

Jan 2021 – May 2021

Undergraduate Research Assistant

Ames, IA

- Circuited a testbed that simulates different 5G environments using software-defined radios.
- Presented my project and research on 5G and wireless networks to the ISU Honors Community.

Relevant Activities

Cardinal Space Mining

Sep 2020 – Present

Controls Project Director

Ames, IA

- Led 9+ members to develop the software and electrical system of a lunar mining prototype robot.
- Won 1st place in autonomy and 2nd place overall at the 2022 NASA Lunabotics competition.
- Developed the obstacle detection subsystem using **Python**, a lidar scanner, and a Raspberry Pi.
- Integrated obstacle detection with path planning for robot traversal using **Java** and the roboRIO.
- Taught new members technical skills like programming in **Java**, using Git, and building circuits.

Selected Projects

Goal Trees - [GitHub](#) | [Demo](#)

Jul 2021 – Present

- Created a full stack webapp using **Django** and **React.js** for splitting goals into a tree of tasks.

Cosmobot - [GitHub](#) | [Demo](#)

Sep 2020 – Jun 2021

- Built a 2D game with the Unity Engine and programmed the game mechanics and physics in **C#**.