Sachin Patel

sachpatel1220@gmail.com | (224) 703-8134 | linkedin.com/in/sach-p | github.com/sach-p | sach-p.github.io

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

Frontend: React.js, Redux, UX/UI Design, jQuery, Figma

Backend: Django, Flask, Spring Boot, Node.js, MySQL

Languages: Java, Python, C, C#, C++, VBA, JavaScript/Typescript, Verilog

Other Skills: Git, Linux, Microcontrollers, FPGA, Unity, MIPS, VHDL

Professional Experience

Vermeer Corporation
May 2022 – Present
Embedded Software Engineering Intern
Pella, IA

- Developed software tools in **VBA** to assist electrical engineers with designing schematics in Zuken.
- Prevented the possibility of faulty circuits being produced by creating a tool to analyze a schematic's circuit using graph traversals to check for any potential hazards.
- Iterated on user feedback to improve a software tool 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

- Won 1st place in autonomy and 2nd place overall at the 2022 NASA Lunabotics competition.
- Led 9+ members to develop the software and electrical system of a lunar mining prototype robot.
- 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 web-app 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#**.