

Sachin Patel

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Education

Iowa State University, College of Engineering

- Bachelor of Science in Computer Engineering
 - Relevant Coursework: OOP, Data Structures, Algorithms, Embedded Systems
- Expected May 2024
GPA: 3.98/4.0

Technical Skills

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

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

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

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

Professional Experience

Software Engineering Intern

May 2023 - Present

Caterpillar Inc.

Peoria, IL

- Designed human machine interfaces (HMI) for generator sets in HTML/CSS, **Node.js**, and **Java**.
- Debugged and fixed errors within the HMI which improved the overall application performance.
- Improved the interface visually to adhere to requirement specifications and customer feedback.

Software Engineering Intern

May 2022 - May 2023

Vermeer Corporation

Pella, IA

- Developed software tools in VBA to assist electrical engineers with designing schematics in Zuken.
- Prevented the possibility of producing faulty circuits by creating a tool to analyze a schematic using graph traversals to check for potential hazards, which will save the company \$600,000.
- Iterated on user feedback to improve a software tool that streamlines the process of placing wires in a schematic.

Front End Design Intern

Jul 2021 – Aug 2021

Expaaand Contract Services

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.

Relevant Activities

Controls Project Director

Sep 2020 – Present

Cardinal Space Mining

Ames, IA

- Led 10+ members to develop the software and electrical system of an autonomous mining robot.
- Won 1st place at the 2023 NASA Lunabotics Competition and the Cat Robotic Mining Challenge.
- Developed the obstacle detection system using **Python** and LiDAR scanners and integrated it with localization and path planning/tracking using **C++** and **Java** for autonomous navigation.
- Doubled member retention by increasing involvement and teaching new members technical skills like programming in Java, using Git, and building circuits to soften the learning curve.

Selected Projects

UNUS - [GitHub](#)

Aug 2022 – Dec 2022

- Developed the backend for a full stack android card game using **Java**, **Spring Boot**, and **MySQL**.