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
- Coursework: Data Structures, Algorithms, Embedded Systems, OS, AI/ML

Expected May 2024
GPA: 3.95/4.0

Technical Skills

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

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

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

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

Professional Experience

Software Engineering Intern
Caterpillar Inc.

May 2023 - Present
Peoria, IL

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

Software Engineering Intern
Vermeer Corporation

May 2022 - May 2023
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
Expaaand Contract Services

Jul 2021 – Aug 2021
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

Cardinal Space Mining Club
Software and Electrical Lead (Apr 2021 - May 2023)

Sep 2020 – Present
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.