

# Shaunak M. Sarlashkar

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## EDUCATION

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### Purdue University

*B.S. in Computer Engineering*

**West Lafayette, Indiana**

*Expected Graduation, May 2026*

- o **GPA:** 3.93/4.00, *Dean's List*
- o **Concentrations:** *Microelectronics & Semiconductors, Artificial Intelligence & Machine Learning*
- o **Related Coursework:** Data Structures, Advanced C programming, Python For Data Science, Introduction to Digital Design, Electrical Engineering Fundamentals 1, Linear Algebra, Multivariate Calculus

## EXPERIENCE

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### Purdue VIP Beyond 5G

*Undergraduate Researcher*

**West Lafayette, Indiana**

*Aug 2024 – Present*

- Prototyping and evaluating various technologies that could be used in the next generation wireless communication systems. Specifically, Ultra-Reliable Low-Latency Communication (URLLC)
- The focus of URLLC will be the backbone of future applications like autonomous vehicle control, drone autopilot, among other things

### EPICS Imagination Station (IS)

*Software & Electronics Design Lead*

**West Lafayette, Indiana**

*Jan 2024 – Present*

- Leading a team in developing and implementing software and electronic solutions for a Mars rover enclosure to deliver to Imagination Station, a science center for kids in Lafayette, Indiana
- Collaborating with a multidisciplinary team to integrate electronics and computer hardware components into the rover control console. Utilizing the Python programming language to create and maintain a graphical user interface (GUI) for the Mars rover control console

### EPICS GreenCampus

*Mechanical Specialist*

**West Lafayette, Indiana**

*Aug 2023 – Dec 2023*

- Worked on the design of a self-irrigating greenwall to be used in educational spaces

## PROJECTS

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### Python Audio Converter

*Class/Personal Project*

**West Lafayette, Indiana**

*Nov 2023 – Dec 2023*

- Developed a Python audio converter application utilizing the NumPy, PyAudio, Wave, and Matplotlib libraries
- Implemented functionality to import wav files into the program for processing
- Utilized PyAudio to interact with computer hardware, enabling playback of audio files directly through the program
- Employed NumPy arrays to represent the audio data

## ACTIVITIES

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### ML@Purdue

*ML Hackathon Board*

**West Lafayette, Indiana**

*Aug 2024 – Present*

- Working on a team project to create a hackathon leaderboard that integrates testing without leaking data
- Implementing and expanding my knowledge of ML and different Python libraries

### Purdue IEEE

*Computer Society*

**West Lafayette, Indiana**

*Jan 2024 – May 2024*

- Worked on a team utilizing the RP2040 microcontroller and CircuitPython to create a micromouse robot that can solve a maze autonomously

## SKILLS

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**Programming:** Java, Python, C, C++, MATLAB, SystemVerilog

**Hardware:** Digital System Design, Arduino

**Tools:** Vim, IntelliJ, Linux, Unix, Git, GDB, KiCAD, LTSPICE