

# Vikas Kakar

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## EDUCATION

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**The Ohio State University** Columbus, OH  
B.S in Electrical and Computer Engineering  
Computer Engineering Program of Study Expected Graduation: Dec 2025

## QUALIFICATIONS

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**Skills:** C++ | **Java 11** | C | **Python** - Matplotlib, Tkinter, Mediapipe, OpenCV, NumPy, Transformers | Verilog | **Embedded C** | Assembly | SQL | MATLAB | CAD/Solidworks | VHDL | Swift(iOS) | **Arduino** | **Selenium** | RESTful API | **Microsoft Office** (Word, Excel, PowerPoint) | Adobe Photoshop | Final Cut Pro

**Interests:** Networking, Telecommunications, Medical devices, AI/ML, FinTech, Healthcare innovation, Data Analysis.

## WORK EXPERIENCE

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**Ciena** San Jose, CA  
*Routing Software Engineering Intern* May 2024- Aug 2024  
- Developed a **Python** automation script to verify LDP statistics for the Multicast and Label Distribution Protocol (LDP) Development Team, leveraging the company's internal testing framework to enhance accuracy and boost efficiency by 85%.  
- Collected and Analyzed data from a YumaWorks YumaPro SDK NETCONF Client and Yang compiler data structure using API calls, then utilized this data to execute verification processes, streamlining and enhancing the accuracy of the testing workflow.  
- Automated verification processes to improve testing efficiency and data integrity, minimizing errors before QA handoff, and significantly reducing manual effort, thereby enhancing overall system reliability.  
- Troubleshooted and resolved minor issues in Embedded C code, improving code reliability and performance.  
- Developed proficiency in configuring routers, protocols, and subnets, while developing skills in using tools and technologies such as Atlassian Confluence, Agile JIRA, Bitbucket, Oracle Red Hat Linux, Docker, SSH, Git, and Command Line Interface (CLI).

**The Ohio State University - College Of Engineering** Columbus, OH  
*ECE Undergraduate Lab Monitor* Jan 2024- Apr 2024 | Sept 2024- Dec 2024  
- Instructed ECE 2020 students in operating oscilloscopes, function generators, and digital multimeters, promoting independent experimentation.  
- Guided students in designing and building passive and active circuits, incorporating prototyping and soldering techniques.

**eTravelMate Pvt. Ltd.** Bengaluru, India  
*Software Testing Intern* May 2023- June 2023  
- Conducted comprehensive end-to-end testing of complex transportation software.  
- Addressed **84%** of critical issues with meticulous attention to detail, ensuring high-quality standards.  
- Collaborated seamlessly within cross-functional teams, actively participating in daily stand-ups and defect triaging sessions, resulting in a **25%** reduction in defect resolution time.  
- Contributed to the software's reliability and user-friendliness, leading to a notable **15%** improvement in overall user satisfaction ratings.  
- Continuously improving problem-solving skills in the dynamic software testing environment, ensuring the software's safety and functionality.

## PROJECTS

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**Gait Analysis Device for Nationwide Children's Hospital (NCH) Gait Lab** Jan 2024 - Present  
- Developed a Python codebase integrating Arduino serial connections and maintained circuit connections, enhancing hardware-software communication.  
- Created a GUI application with Python Tkinter to collect and display real-time weight data, plotting angle vs. moment using Matplotlib.  
- Implemented data logging in Excel and automated graph exports to PDF, streamlining data analysis and reporting.

**Wearable Device for Post-operative Wound Assessment** Nov 2022  
- Designed and built a low-cost, sensing patch to monitor post-surgery infection risk  
- Utilized Arduino and MATLAB to construct a robust temperature acquisition platform  
- Placed **2nd in Bio-Hack**, The Ohio State University's premier biomedical engineering hackathon