

Rishabh Bhattarai

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EDUCATION

University of Michigan - College of Engineering | Ann Arbor, MI

April 2027

B.Sc. Computer Engineering | GPA: 3.83

Relevant Coursework: Intro VLSI Design, FPGA/Logic Design, Computer Architecture, Data Structures & Algorithms

Organizations: Michigan Aeronautical Science Association (MASA), Nepali-American Youth Association (NAYA)

WORK EXPERIENCE

System Engineering Intern / Co-op | Sierra Nevada Corporation | Englewood, CO

May 2025 - Present

- Developed a reusable SysML-based system engineering meta-model template using DOD methods, standardizing project development across engineering teams.
- Integrated an Arduino-powered robotic arm with SNC internal tools; documented connectivity and workflows to support scalable third-party tool integration.
- Collaborated with cross-functional engineering and development teams on product lifecycle decisions and proposed modernization strategies for legacy systems.
- Contributed to model validation efforts in Cameo Enterprise Architecture, improving traceability and ensuring alignment with stakeholder requirements in defense/aerospace projects.

SharePoint Developer | MSU Facility for Rare Isotope Beams | East Lansing, MI

May 2024 - January 2025

- Designed and prototyped Microsoft SharePoint Online (SPO) applications to streamline business workflows.
- Automated 10+ business processes using Microsoft Power Automate, improving efficiency across departments.
- Assisted in the maintenance and continuous improvement of 10+ SPO applications, ensuring user satisfaction.
- Tested and deployed SPO applications in production environments, following Agile development methodologies.
- Provided timely assistance through Kayako ticketing system for 500+ laboratory members and engineers, resolving issues and increasing productivity.

PC Technician | MSU Surplus and Recycling Center | East Lansing, MI

August 2023 - May 2024

- Processed 200+ electronic devices monthly for recycling and resale, ensuring compliance with data security protocols.
- Managed network OS deployment across 50+ computers weekly, enhancing device readiness for resale.
- Repaired and restored hundreds of damaged devices, enhancing the quality and value of items for resale.
- Built expertise in diagnosing and repairing electronics, including industrial systems, AV equipment, and computers.

PROJECTS

Traffic Intersection Controller on FPGA (Verilog, Quartus, ModelSim)

April 2025

- Implemented a finite-state machine for multi-direction traffic control with conflict-avoidance logic.
- Verified design through ModelSim simulation and deployed to FPGA hardware with real-time sensor mapping.
- Applied RTL design practices and debugging on FPGA to ensure reliable synchronous operation.

SKILLS & CERTIFICATIONS

Technical Languages: Python, C/C++, R, Verilog, JavaScript, SQL, x86-64 Assembly, SysML

Tools & Technologies: Microsoft 365 Suite, No Magic Cameo, Cadence Virtuoso, RStudio, Git, Linux, Siemens ModelSim

Skills: Software/hardware design, FPGA development, Agile methodology, model-based system engineering, debugging

Certifications: CompTIA/TestOut: Security Pro (2023), Network Pro (2022), PC Pro (2022), IT Fundamentals Pro (2021)