

# Deepak Neupane

[deepak.97733@gmail.com](mailto:deepak.97733@gmail.com) | 989-964-8179

Highly collaborative and detail-oriented Software Engineer with over four years of experience. Skilled in DevOps practices, test automation, and in-house tools development, with a track record of effective communication and problem-solving across cross-functional teams. Adept at managing CI/CD pipelines, evaluating third-party tools, and delivering reliable DevOps infrastructure. Dedicated to continuous improvement and innovation, leveraging both technical expertise and strong interpersonal skills to drive results.

## Experience

### **Embedded Software Engineer III at HL Mechatronics, 2020 - Present**

- **Software Development:** Created automation scripts and internal applications using C, C#, Java, Groovy, and Python. Utilized Django and Flask for application development, handling in-house deployment processes from start to finish.
- **DevOps:** Managed CI/CD pipelines for embedded software projects using GitLab, Bitbucket, and PTC Integrity. Structured and maintained code repositories, oversaw Jenkins build servers, and coordinated software deliverables with developers.
- **Software Tools Evaluation:** Assessed various tools (hardware and/or software) (PTC Integrity, Matlab, Simulink, Polyspace, Vector DaVinci Configurator, Vector CANoe, CANape, Intrepid RADComet, VehicleSpy) for embedded software development for organizational needs.
- **Test Automation:** Led embedded test automation initiatives using ECUTest, Python, and Shell/Batch scripts. Instrumented fault injection code, executed test scenarios, and automated processes to enhance efficiency.
- **Manufacturing Support:** Provided support during manufacturing by bench testing UDS and XCP services, collaborating with factory engineers to resolve issues on the assembly line.
- **Embedded Software Development & Testing:** Contributed to Bootloader, Hardware Security Module, and application software development. Familiar with cybersecurity features (e.g., CMAC verification) and diagnostic testing on Aurix Microcontrollers using iSystems tools (bluebox, winIDEA), Tasking Tricore compiler, and WindRiver compiler.

## Education

### **Master of Science in Software Engineering and IT, 2024**

Oakland University, Rochester, Michigan, USA

## Technical Skills

- DevOps (CI/CD, Jenkins, GitLab, Bitbucket, PTC Integrity)
- Programming Languages: C, C#, Java, Groovy, Python
- Frameworks: Django, Flask, React, Springboot
- Embedded Systems Development & Testing
- Test Automation (ECUTest, Python, Shell/Batch Scripts)
- Tool Evaluation (Matlab, Simulink, Polyspace, Vector CANoe/CANape/DaVinci, Intrepid RADComet, VehicleSpy)
- Cybersecurity (Penetration testing, fault injection testing, static code analysis)
- Build & Deployment Tools: Jenkins
- iSystems Tools (bluebox, winIDEA), Tasking Tricore Compiler, WindRiver Compiler