

# Matthew Nguyen

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## EDUCATION

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### Gonzaga University

*Bachelor of Science in Computer Science*

GPA: 3.99/4.00

Aug. 2021 – May 2025

*Spokane, WA*

## SKILLS

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**Languages:** C, C++, Rust, Python, Bash, PowerShell

**Technologies:** Linux, Windows, Git, WinDbg

## EXPERIENCE

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### Software Engineer

*Microsoft*

Aug. 2025 – Present

*Redmond, WA*

- Drove parallelization of hypervisor pre-check-in validation, cutting developer feedback time by over 50%
- Resolved parallel-specific failures, race conditions, and design principles in the test suite and driver
- Extended test orchestration scripts to enable scalable parallel execution and added observability metrics
- Owned time-sensitive live migration fixes for Azure Host 2025, co-developing TMK-based test cases

### Software Engineer Intern

*Microsoft*

May 2024 – Aug. 2024

*Redmond, WA*

- Developed and presented a user mode hypervisor save/restore fuzzer built with LibFuzzer and C++
- Enhanced fuzzing efficacy through the research and implementation of structure-aware fuzzing techniques
- Identified and fixed two hypervisor bugs uncovered during the fuzzing process
- Transferred knowledge to the MORSE team, enabling them to continue independent fuzzing efforts

### Software Engineer Intern

*Infineon Technologies*

July 2023 – Apr. 2024

*Portland, OR*

- Addressed UI bugs in ModusToolbox using C++ and Qt, ensuring consistent widget behavior and visual elements
- Enhanced Smart I/O Configurator workflows by adding note-taking and saving during lookup table configuration
- Presented the note-taking feature design to senior engineers, addressing edge cases and testability

### Research Assistant

*Gonzaga University*

Jan. 2023 – May 2023

*Spokane, WA*

- Developed Python data collection pipelines for social media network analysis using Pandas and NumPy
- Implemented API token rotation and stochastic weighted selection to improve data collection performance
- Presented technical optimizations at the Spokane Intercollegiate Research Conference

### Computer Lab Manager

*Gonzaga University*

Aug. 2021 – May 2022

*Spokane, WA*

- Automated software installations and routine system maintenance across lab machines using Bash scripts
- Assisted students with development environment setup, ensuring smooth workflows for coursework
- Maintained and organized computer lab environments for the Computer Science Department

## PROJECTS

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### Luna Jetson | *Python, Jetson, Twilio, Flask, Ngrok*

May 2023

<https://github.com/mootqns/luna-jetson>

- Created a real-time pet tracking system with Python, NVIDIA's Jetson Xavier AGX, and JetPack SDK
- Enabled smart notifications using Twilio for pet presence, preventing repeated alerts on pet detection
- Used Flask and Ngrok to serve and securely share static images to conform to Twilio's expectations