

MALAKALAPALLI NAGENDRA

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PROFILE INFO

Enthusiastic software Engineer with over two years of experience, I specialize in Linux Device Drivers, Graphics Driver Validation, and Board Support Package (BSP) development. My journey has been defined by a passion for solving real-world challenges and optimizing performance across embedded systems and Linux platforms.

SKILLS

C/C++	Shell scripting	STLC (SW Test Life Cycle)
Debugging	Linux BSP	Validation (BIOS, Post Silicon, Driver)
Device Drivers	Python	Data Structures
CI/CD	Linux (Ubuntu, RHEL)	Kernel Mode Drivers
Kernel Configuration	Automation	Software Testing

EXPERIENCE

L&T Technology Services, Hyderabad – Engineer

Client: AMD India Pvt (Sept 2022 – Present)

Project: Embedded Linux Driver Development and Automation Framework Integration at AMD

- Leveraged the GNU toolchain (GCC, GDB, Make) to streamline software development, debugging, and automated builds, enhancing system performance and reliability.
- Engineered and optimized custom Linux kernels by configuring, compiling, and fine-tuning parameters to enhance performance, stability, and hardware compatibility.
- Customized Linux kernel features using menuconfig, xconfig, and oldconfig to optimize module selection, enhancing system performance and compatibility.
- Streamlined kernel compilation and deployment by automating processes with shell scripting and CI/CD pipelines, enhancing development efficiency.
- Configure and Build a Custom Kernel in Linux.

Project: Graphics Driver Automation and Validation at AMD

- Proficient in test methodologies and processes, encompassing requirement analysis, test plan creation, automation, and verification strategies for optimized software quality.
- Validated graphics drivers on Windows/Linux for both released and unreleased GPUs, ensuring optimal performance and reliability.
- Debugged User Mode Driver (UMD) issues with OpenGL, OpenCL, and Vulkan.
- Conducted thorough debugging on pre-silicon and post-silicon platforms.
- Reproduced and debugged issues in drivers, GPU tools, and monitors using C/C++.
- Addressed core graphics issues, including KMD, UMD, DirectX API, and system components.

- Completed Embedded Systems Development training in C, C++, Linux, and OpenGL.
- Specialized in Linux device drivers, shell scripting, and BSP development, including custom kernel builds on Beagle Bone Black.
- Gained hands-on experience in Linux OS, process management, and file system navigation.
- Acquired knowledge of Android frameworks, including AIDL, architecture, buffers, and shaders.

EDUCATION

05/2022	B.Tech (ECE)	Lovely Professional University, Punjab
05/2018	XII	Narayana Junior College, Vijayawada
05/2016	X	Bhartiya Vidya Bhavan's, Tadepalligudem

ACHIEVEMENTS

- **AMD (2024):** Innovation Expo 2024
- **LTTS (2024):** Raising star award.
- **LTTS (2023):** Received client recognition for outstanding work.
- **SYNOPSYS (2021):** 5Th Position in Anveshana.
- **PATENT(2020):** A Novel Detachable System to Depict Potholes(IN: 202011051339)
- Runners-up National Handball Tournament 2019.

LANGUAGES

- **English:** Proficient
- **Telugu:** Native Language
- **Hindi:** Intermediate

I, hereby declare that the information detailed above is authentic to the best of my knowledge.

Date: 31/01/2025

Signature: M. Nagendra