

Ganesh Induri

Hyderabad, India

☎ (+91) 7981923964 | ✉ ganeshinduri4@gmail.com | 🐙 github.com/GaneshInduri9 | 🔗 linkedin.com/in/ganeshinduri9 | 📱 ganesh-portfolio.app

SKILLS

Strongest Areas	: Data Structures, Algorithms, IoT & Cloud Computing
Programming Languages	: C, Python, Groovy, Shell Script, JavaScript, Java.
Protocols	: Zigbee, MQTT, TCP/IP
Tools	: CMake.
IoT Services	: AWS IoT Core, Wifi Motion.

WORK EXPERIENCE

Comcast, Software Development Engineer

Jul-2023-current

- Designed and implemented an **AWS delegate pattern** to unify per-device Thing representations under a shared class-level delegate, **improving heap utilization** and **scaling IoT process efficiency** across large device networks, reducing the heap memory by 2%.
- Initiated a POC to reduce Xfinity camera onboarding time**, enabling customers to auto-provision devices through the open network and automate integration with internal gateway and billing services, targeting a significant reduction in setup effort.
- Implemented automated **time zone and DST handling at the firmware level** for Xfinity Home gateways, ensuring scheduled tasks adapt to regional changes across 120+ regions.
- Expanded embedded automation support for **chime devices (door/window sensors, locks, and bells)** by integrating telemetry at the device layer, increasing real-time event visibility by 30%.
- Developed a **Python-based embedded debugging toolchain** to automate device status queries, replacing manual inspection and reducing developer dependency by 80%.
- Designed and implemented GObject-based APIs for Zigbee and Matter (e.g., device discovery, commissioning) within Comcast's Barton framework. Contributed these features to the RDK open-source project, enabling standardised multi-protocol IoT device communication.
- Engineered a **firmware descriptor validation utility** (Python CLI) that automated checksum generation for firmware updates, ensuring secure upgrade validation and saving \$3,000 in manual QA effort.
- Integrated an external cognitive subsystem on RDK-B devices to detect Wi-Fi motion, consuming these events into Comcast's IoT stack and publishing motion alerts to mobile clients via AWS IoT.
- Built an **on-device diagnostic utility** to capture real-time process data, isolate root causes of embedded failures, and automate reporting to cloud services. Reduced software defects by 10% and improved system stability.

Comcast, Software Development Engineer, Intern

Jan-2023-Jul-2023

- Innovated an **automation utility tool that creates, deletes, queries, and updates available** automations, providing a solution to clients dependent on these automations via the device command-line utility. This involved identifying opportunities for improvement through technical discussions and performing technical trade-offs to enhance functionality.
- Participated in technical design reviews and trade-off discussions, focusing on scalability and reliability of **embedded IoT automation services**

PROJECTS

FreshFynd e-commerce

Github

- Crafted a high-performance e-commerce platform using the NodeJs, Express Js, React Js, styled with Tailwind CSS.
- Leveraged MongoDB's indexing and aggregation pipelines to enhance product search efficiency by 10%, ensuring seamless navigation of products.

EDUCATION

VelTech University, Bachelors in Electronics and communication Engineering.

CGPA: 8.37

Jul-2019-Apr-2023

Relevant Coursework: Object Oriented Programming, Discrete Maths, Data Structures and Algorithms, Operating Systems, Embedded c programming.

AWARDS

- Pinnacle Award Q4 2024, Awarded by Krithika Raman(VP) for significant contributions toward open sourcing Barton under RDK.