

Ganesh Induri

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SKILLS

Strongest Areas : Data Structures, Algorithms

Languages : Java, C, C++, JavaScript, Python, Groovy, Shell Script, HTML5

Frameworks : React Js, Node Js, Tailwind CSS, Bootstrap-5, Express Js

Technologies : AWS IoT core, Zigbee Protocol, G-Object, MQTT, MongoDB

Methodologies : Inter-Process Communication (IPC), Socket communication, Multi-Threading

EXPERIENCE

Comcast, Software Development Engineer

Jul-2023-current

- Developed **G Object APIs** to pair Zigbee devices, commission Matter devices to a gateway, and seamless communication with existing devices on the network, increasing the device **efficiency by 20%** and supporting 10 million devices.
- Architected signals for device events, such as **device discovery** and **commissioning**, enhancing monitoring capabilities and increasing operational efficiency across **diverse deployments** by 32%.
- Contributed to open-sourcing the Barton Project under RDK-M, **enabling 13 million RDK** devices to integrate device control and management features provided by Barton. This initiative enhanced collaboration simplifying **device integration** by 40%.
- Integrated introspection, **enabling clients with high level languages** to seamlessly interact with the device-service API through automatically generated bindings. Expanded Barton's accessibility, streamlining client integration and boosting **business opportunities** by 20%.
- Implemented **local time zone and DST** in gateways, enhancing **automation functionality** and scheduled tasks aligned seamlessly with regional time changes. This increased user satisfaction by 10% across 120 regions **affected by DST**.
- Created a **Python CLI tool** to automate the process of updating the device descriptor list XML file with checksum of the latest firmware. Enabled validation firmware upgrades, **reducing the manual effort** and saving \$45000.
- Expanded automation for **chime devices**, including Door-Window sensor chime automation, Door-Lock chime automation, and Door-Bell chime automation. Added **telemetry support**, increasing Chime visibility by 30%.
- Engineered **subtype sensor discovery**, enabling mobile app to categorise and **pair devices lights, switches**. Automated AWS messaging improved real-time updates, enhancing user experience by 25%.
- Mentored two juniors in setting up, developing, deploying, and debugging in Xfinity home firmware project.

Comcast, Software Development Engineer, Intern

Jan-2023-Jul-2023

- Enhanced device visibility on the Xfinity app by 10% by creating and publishing **shadow states for multiple devices to AWS**. Added detailed reporting features, including power consumption tracking and device status updates.
- Built a **diagnostic utility to collect service-wide** device data and upload it to the cloud, reducing bugs by 10%.

EDUCATION

VelTech University, B-tech in Electronics and communication Engineering.

CGPA: 8.37/10

Jul-2019-Apr-2023

Relevant Coursework: Object Oriented Programming, Discrete Maths, Data Structures and Algorithms, Operating Systems, Networking, Advance Data Structures and Algorithms, Image Processing, Digital Signal Processing.

PROJECTS

FreshFynd e-commerce

- Developed a high-performance e-commerce platform using the **NodeJs, Express Js, React Js**, styled with Tailwind CSS.
- Optimised for speed, the website loads **40% faster** than standard e-commerce sites by implementing server-side rendering and caching strategies.
- Leveraged MongoDB's indexing and **aggregation pipelines to enhance product search** efficiency by **50%**, ensuring seamless navigation for thousands of products.

Leetcode-150

- A repository containing **150+** of the best problems frequently asked by top tech companies.
- Multiple approaches** for each problem, ranging from brute force to the most optimal solutions, **Clear explanations** of the intuition behind each approach to help users understand the logic.
- Algorithms run 60% faster** than other LeetCode solutions on average, thanks to optimised approaches

AWARDS

- Pinnacle Award Q4 2024**, Awarded by Krithika Raman(VP) for significant contributions toward open sourcing Barton under RDK-M.
- Received the 'CHAMP' Award at Comcast for improving overall device performance by 3%.