**UPENDRA GUPTA**

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[Portfolio](https://upendraguptaoffice.github.io/Upendra/)|[linkedin.com/in/upendragupta2107](https://www.linkedin.com/in/upendragupta2107)

**About**

Innovative Computer Science Engineer with 2.5+ years of experience in 5G RAN integration, C development, and automation. Proven expertise in 5G NR, O-RAN, and Linux-based systems with a strong background in deploying and optimizing gNB configurations, enhancing network performance, and reducing operational errors through automation. Skilled in C programming, scripting, and DevOps practices, dedicated to driving efficiency and system stability in telecommunications.

**TECHNICAL Skills**

**Programming Languages:** C, C++, Bash

**5G RAN Technologies:** 5G NR, O-RAN, gNB, RU/DU/CU, Layer 1/2 Protocols (MAC, RLC, PDCP).

**Tools & Platforms:** Linux, GIT, Wireshark, Log analysis, Jenkins, Ansible, Docker, Vim.

**Networking**: 3GPP standards, SCTP, Interfaces (N2, N3), IPsec, Fronthaul/Midhaul Integration.

**Automation & DevOps:** CI/CD pipelines, Logging, Monitoring, System Core Optimization.

**Education**

Bachelor of Engineering (B.E.) in Computer Science

AMCEC (*Affiliated to VTU*), Bangalore

2018 – 2022 | CGPA: 7.82/10

**Work Experience**

Capgemini Engineering (formerly *Altran*), Gurugram

Associate II | AUG 2022 – Present

**5G RAN Integration & Deployment:**

* Led end-to-end deployments of 5G RAN networks, including configuration of RU, DU, and CU, improving handover success rates by 20%.
* Configured fronthaul and backhaul connections in accordance with 3GPP standards for 5G NR systems.

**C Development & Automation:**

* Designed and implemented a C-based Core Binding GUI Tool, reducing core-thread mapping setup time by 35%.
* Developed an End-to-End Log Debugging Tool that streamlined log analysis and reduced issue resolution time by 50%.
* Created a 0-touch server bring-up automation script, cutting setup time by 40%.

**Testing & Client Management:**

* Conducted testing for CBRS, O1 interface, and handover functionalities at customer sites, ensuring system readiness.
* Served as the primary technical contact for US-based clients, enhancing customer satisfaction through effective issue resolution.

**Project Work**

**Core Binding tool**

* Developed a C-based GUI tool to automate core binding in 5G NR systems with customizable core-thread mapping, improving deployment efficiency by 30%.

**Server Bring up tool**

* Engineered a 0-touch automation script for server initialization, significantly reducing manual intervention and setup time.

**5G RAN Optimization Tool**

* Created a C-based tool to optimize gNB configurations, leading to a 15% improvement in network performance.

**Certificates**

* 5G-architecture-design-protocols-evolution-deployment [Certificate](https://www.udemy.com/certificate/UC-57d72425-cedc-4aca-aa3a-2cbd3fd0efa0/)
* 5G for Everyone [Certificate](https://coursera.org/verify/8ZCCWRJWZ7VS)
* C for Everyone [Certificate](https://coursera.org/verify/KA3THPUPR3RW)
* Linux Fundamental [Certificate](https://www.coursera.org/account/accomplishments/verify/4RJN8RU7HGY4)
* Continuous Integration/Delivery [Certificate](https://www.udemy.com/certificate/UC-42ac5481-bd9c-416f-9ed7-91c271204248/)
* Jenkins [Certificate](https://www.udemy.com/certificate/UC-d57a6fd8-33de-4651-a605-1200dce43894/)
* Ansible & Ansible-Playbooks for Automation [Certificate](https://www.udemy.com/certificate/UC-aadb24c7-f8b5-40ce-a3bd-a8a1723861dc/)

**Achievements**

* **Employee of the year (Dec 2023****):** Recognized for outstanding contributions to 5G integration and automation at Capgemini Engineering.
* **Google Quick Labs Achievement (May 2021):** Commended for proficiency in CI/CD and DevOps through successful completion of lab projects.